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Medical Times

A Monthly Journal of Medicine, Surgery and the Collateral Sciences
Published by THE MEDICAL TIMES COMPANY at 95 Nassau Street

VOL. LII, No. 1 NEW YORK, JANUARY, 1924 Twenty-Five Cents a Copy Two Dollars a Year

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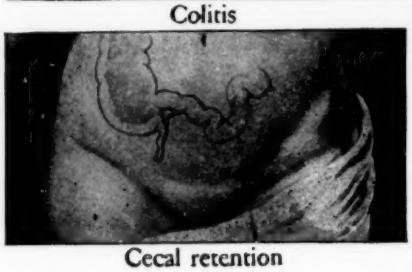
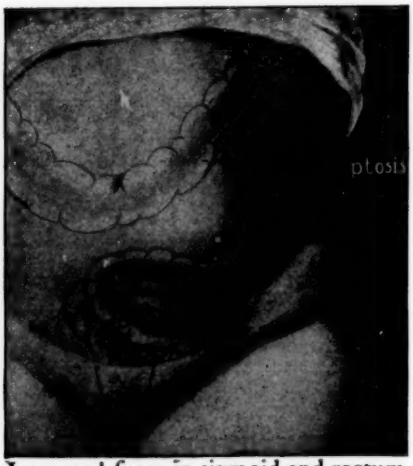

Cecal retention



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A Monthly Journal of Medicine, Surgery, and the Collateral Sciences

Vol. LII., No. 1 | New York, January 1924 | Twenty-Five Cents a Copy Two Dollars a Year

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The Progress in Internal Medicine During the Year 1923

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FORMERLY PROFESSOR OF MEDICINE IN THE NEW YORK POST GRADUATE MEDICAL SCHOOL AND HOSPITAL AND PRESIDENT OF THE AMERICAN COLLEGE OF PHYSICIANS.

New York

The outstanding feature in contemporary medical literature has been insulin, discovered about two years ago by Banting and Best in the laboratory of Macleod at the University of Toronto.

Joslin summarizes as follows: Insulin lowers the percentage of the sugar in the blood, and with this there takes place a storage of glycogen in the liver. Thus it inaugurates the metabolism of carbo-hydrate in the blood and further completes the combustion of carbo-hydrates, as is proved by a rise in the respiratory quotient, even to unity. Fat burns in the flames of the carbo-hydrate, therefore the fat in the blood decreases and, along with it, falls the percentage of fat in the liver. The better combustion of carbo-hydrate and the resulting better combustion of fat tend to the disappearance of acidosis.

It is a desirable remedy for those diabetic patients who cannot maintain weight, strength and mental activity, as its use is not limited by age, duration or severity of the disease, but in younger patients and the shorter duration of the disease it acts more promptly and in general with smaller doses.

The dangers and inconveniences are: (1) The hydroglycæmia, a fall below the normal of blood sugar (0.10 to 0.08 per cent), a sense of uneasiness, restlessness, unusual hunger, and with a continuation of the fall, sweating, tremor, visible or felt, and, if this decline reaches 0.04 per cent or less, unconsciousness may supervene; all of these symptoms are promptly relieved by the immediate administration of glucose (an orange or a few lumps of sugar); (2) The omission of insulin is a grave danger when the patient continues the increased diet which it has allowed. The more moderate the increase in diet and the smaller the dosage the less likelihood of a catastrophe if the artificially created equilibrium is disturbed.

Th dose of insulin is measured in units—the unit being one third of that amount which is necessary to lower the blood sugar of a rabbit weighing two kilograms and fasting for twenty hours, to 0.045 per cent, or below, with the production of convulsions within from two to five hours. The average dosage in observed patients was eleven units daily, the extremes were 30 and less than 6 (children).

Insulin is not a cure for diabetes; it allows the patient to satisfy his appetite and to eat enough food for his daily labor, but does not permit him to eat everything that he desires. His food is utilized by insulin, and not replaced by it.

The method of administeration is as follows: One unit is given before the first meal, which consists of that one of four test diets which is nearest in comparison to the food which the patient has been accustomed to eat. Before the second meal, two units; before the third, three units; before the fourth, four units, and before the fifth meal five units, and thereafter five units, three times daily. Before each meal the urine must be tested to be certain that the sugar has not disappeared, since otherwise the insulin might be given unnecessarily or even cause harm. Upon the next day after commencement of the treatment, one proceeds to the next diet in the list, containing a lower quantity of carbo-hydrate, and so on until with the help of dietetic restriction, based largely upon under nutrition, and insulin, the urine becomes sugar-free. So soon as this occurs, which is likely within from thirty-six to seventy-two hours, the diet is changed to that maintainance diet with a similar quantity of carbo-hydrate, but with a larger proportion of protein and fat. Thereafter the diet is advanced until the caloric needs of the patient are supplied, that quantity of carbo-hydrates being allowed which the patient can tolerate with the moderate dosage of insulin. Eventually the noon dose is omitted. If the disease is mild the evening dose also may sometimes be omitted, although this is not always desirable. Patients need to be taught, by

demonstration, the diets, urinary tests, and method of administering the remedy, and especially must realize the danger of continuing the diet if the remedy is omitted.

Petty summarizes his experience as follows:

(1) Insulin administered subcutaneously in appropriate amounts and at proper intervals will reduce the blood sugar to normal, render the urine sugar-free, and if the diet is properly prescribed will enable the diabetic to continue his usual professional or business pursuits; (2) Diabetics, requiring operation, by the use of insulin can be put in such a condition in a short time that only the choice of anæsthetics need be considered; (3) Untreated or improperly managed diabetics who have become comatose, even with pernicious vomiting, within a few hours can be restored to consciousness and, ultimately to a pleasant and useful life if insulin is heroically but carefully administered.

Cornwell reminds us that in the treatment of diabetes regulation of the diet is essential and there is no reason to doubt but that it will always be so. Valuable as insulin may be as a palliative and emergency remedy, it cannot obviate the necessity for dietetic regulation, although it may increase the effectiveness of particular diets; in fact, the use of insulin calls for increased care and precision in dietetic regulation. For patients who cannot take care of the basal metabolic requirement, and also for those who cannot take care of a diet sufficient to meet the energy requirement of the mode of life desired, insulin may be given. The examinations which are essential, examination of the urine for glucose and ketone bodies, estimation of the blood sugar, and perhaps estimation of the carbon dioxide of the blood plasma.

Thalheimer, from clinical osbervations, believes that injections of insulin and glucose solution in instances of post operations vomiting and ketosis apparently have been of more rapid benefit than has resulted from the use of glucose injections alone, but insulin must be administered with greater care in these instances than when they occur in diabetics.

It is apparent from a careful study of the literature and from a critical analysis of clinical results, including those of competent and discriminating colleagues, one must believe that at present too much is expected from educating the patients in the administration of hypodermatic injections and in the performance of urinary tests. Further, that standardization of blood chemistry technique is absolutely essential in order that more confidence may be engendered in the laboratory reports which are employed as a basis for therapeutic intervention. The use of insulin will become more widespread and the sum total of benefit to diabetics enormously increased if its oral administration can be effectively secured.

Cecil points out that specific prophylaxis of pneumonia depends upon the practical application of the principles of pneumoccus immunity. Immunity after an attack is of high degree against the homologous type of pneumococcus and it is possible to vaccinate man against the disease with three subcutaneous injections. The ordinary saline suspension of killed pneumococci, which may be polyvalent for the first three types, is used. On account of the severe reaction which sometimes follow the subcutaneous use of this vaccine a less toxic product is desirable and it is suggested that extracts of pneumococcus antigen can be prepared from pneumococci digested with trypsin, which are not toxic for animals and which produce practically no reaction in man. In fact, a water-soluble, non-toxic pneumococcus antigen, suitable for subcutaneous injection or even for use as a spray from an ordinary atomizer is expected to be produced.

As for the specific treatment of the disease once established the aqueous solution of the immune bodies originally contained in a polyvalent anti-pneumococcus serum as first developed by Huntoon possesses these advantages: (1) It is polyvalent against the first three and of value in the fourth type of pneumococcus infection; (2) It is practically free from horse protein, hence there is no danger of anaphylaxis or serum sickness; and (3) the preparation being a watery solution, it is very soluble and when injected subcutaneously is readily absorbed. The results of its use intravenously demonstrate that there is a marked decrease in the death rate, more marked the earlier in the disease that it is administered. In a comparatively limited number of instances in which it has been used, the results from the subcutaneous method of administration have been equally good. Naturally this treatment is without effect in streptococcus or bacillus of Friedlander pneumonias.

Since Frey reported the action of quinidin in terminating auricular fibrillation and flutter many experimental and clinical studies have been made, with the general result that his conclusions have been confirmed. Wolferth now presents a careful study of the literature. The pharmacology has been carefully worked out, showing that it decreases the force of the cardiac contractions; while the auricular rate was maintained it produces delay in contraction and finally a dropping out of ventricular beats; it causes slowing of the rate and that this action must be exerted directly on the pacemaker; that it diminishes excitability; that it causes paresis of vagus action, but not complete paralysis; that its duration of action so far as principal effects are concerned is only for one or two days. The therapeutic results have been that in auricular fibrillation, with very little selection of patients, this may be abolished in well over one-half of the instances, and these may be improved by more careful selection of patients. The results are excellent in recent fibrillation with good compensation, those of long standing are much more refractory, in a smaller percentage of which normal rhythm may be established, but also the tendency to recurrence is great.

If evidences of heart failure are conspicuous, the administration of quinidin is a dangerous procedure, and is rarely advisable. Patients must be under close observation, rest is important, but absolute confinement in bed is not necessary; ambulatory patients should not be treated by this remedy. The dosage advised is 6 grains 3 times daily, and if fibrillation persists and no unfavorable signs develop, to increase the dose gradually over a period of about ten days to as much as 15 grains 3 times daily. There are, however, marked variations in tolerance. The dangers of administration must be emphasized because of the ever-increasing number of fatalities, some attributed to embolism, which may appear shortly after the restoration of normal rhythm, rarely from respiratory paralysis, or from sudden cessation of cardiac action.

Auricular flutter is about as amenable to the treatment as is fibrillation, although the dangers inherent to the treatment would suggest the use of digitalis

first. Certain patients suffering from paroxysmal tachycardia have received great benefit, the paroxysms being entirely held in abeyance. It has no value in the treatment of simple tachycardia and a very limited field of usefulness in extrasystolic arhythmia.

Mohler, recognizing that fact upon which practically all clinicians agree, that the basal metabolic rate varies with the activity of the thyroid gland, also notes its probable increase in pernicious anæmia, leukæmia, severe diabetes mellitus and cancer, and its probable decrease in starvation and wasting disease. Its estimation is regarded as most important in the recognition of the nature and degree of disturbance in (1) Enlarged thyroid gland with symptoms of hyperthyroidism; (2) Enlarged thyroid gland without symptoms; (3) Enlarged thyroid gland with symptoms resembling those of hyperthyroidism, but due to other causes; (4) No apparent enlargement of the thyroid in the presence of symptoms of hyperthyroidism; (5) Enlargement due to tumors of the thyroid gland in which there is no change or an increase or decrease in the activity of the gland; (6) Enlarged thyroid gland with symptoms of diminished activity of it; (7) No apparent change in size of the thyroid gland with symptoms of diminished activity of it; and, finally, (8) Suspected substernal goitres.

It is recommended that the basal metabolic rate should be determined in every instance of goitre with impaired health to determine whether the goitre or other causes are responsible; for instance, the irregular hearts of soldiers, recently so familiar, neuro-circulatory asthenia, nervousness, weakness, loss of weight, incipient tuberculosis, syphilis and gastro-intestinal disturbances. The so-called functional enlargements of the thyroid gland, so frequently found in women during menstruation or pregnancy, provided the basal metabolic rate is normal, cease to be of pathological importance. Tumors of the thyroid gland exhibit a varied effect, or none at all, upon the basal metabolic rate. In general this procedure determines the actual activity of the gland which is so necessary both in diagnosis and prognosis and especially in treatment.

It must also be remembered that many morbid conditions present phenomena which of themselves increase the basal metabolic rate—chills, sweats, fever, dyspñœa, exercise, food, emotions, apprehensions, anger, fright, tremor, menstruation,—and must be considered in estimating the significance of the observations. Finally, the basal metabolic rate will not measure the degree of impairment of the heart or of the kidneys that may be associated with the disturbed function of the thyroid gland.

In this connection the important paper of Stoner upon the determination of the basal metabolic rate deserves consideration. Defining this as the percentile variation of actual minimal from the expected minimal heat production, after discussion of the various methods of determination in vogue, the necessity for rigid standardization of the preparation if the patient is emphasized. There evidently should be added the standardization of methods which would be more conducive to accurate interpretation of the results of these determinations which would enhance their value as bases for the internest to formulate his conclusions.

Duke presents an authoritative summary with his conclusions upon the quantitative Wassermann reaction. To gain most from this, two tests must be employed—the diagnostic and the treatment test. For the former to be most useful several tubes of different delicacy must be used—one or more sensitive enough to come out four plus in the great majority of patients with active syphilis, and one or more to cause us never to give a false positive reaction. When this is done, definite conclusions can be drawn, not only as to the positive diagnosis of syphilis, but also as to its exclusion. When both sensitive and coarse techniques are negative reactions syphilis can be practically excluded. When both techniques give four plus, the evidence of syphilis is almost positively proven. When the sensitive tests come out positive, however, and the coarser test negative, the reaction must be considered indefinite and the diagnosis must be based entirely upon history, physical examination, spinal fluid test, and the therapeutic test.

For the treatment test, to be most useful, titrations must be made, for many bloods are so strictly positive that serologic improvement is hidden unless this is done. The effect of treatment varies in the different stages of the disease. In the early ones a reaction to negative is relatively constant, and this is usually associated with symptomatic improvement. Usually a negative reaction can be obtained within two or three months. This is true usually of the primary, secondary and tertiary stages, although the rate of improvement is, as a rule, slower in the latter. A failure to obtain this result indicates the necessity for a careful examination, and, usually, care for the general health of the patient will yield a successful serologic and symptomatic result.

In the instances of late syphilis, especially neurological syphilis, the course followed by the titre in patients under treatment presents inconsistencies. As a general rule, it can be stated that under treatment the titre slowly falls and that this is associated usually with symptomatic improvement. Every possible variation from this, however, is observed. Such inconsistencies might be expected for the symptoms of late syphilis depend not so much upon the severity of the infection at a given time as upon its location and upon the damage done during a period of years before treatment had been instituted. For this reason it is noted that occasionally under treatment a serological improvement is actually associated with a clinical breakdown. Both the Wasserman reaction and the symptoms of this disease are markedly influenced by ill health due to other causes and success in the management of this disease depends as much upon the attention to the general health as upon the correct use of anti-syphilitic remedies.

Francis presents an interesting study of tularæmia, a disease so named from the causative organism, bacterium tularenuse, discovered by McCoy and Chapin in 1912. The disease must be differentiated from typhoid fever, septic infection and ganders.

In an endemic focus in Utah and the adjoining states, a person presenting a fly-bite in June, July or August, with inflammation of the adjacent lymphatic glands, with fever and prostration arouses at once a suspicion of this disease. In the case of a person who has dressed or prepared rabbits for the table, market man or house servant, and who develops inflamed glands of the cervical epitrochlear, or axilary regions, accompanied by fever and marked illness, this disease should be borne in mind and appropriate tests be made, especially if these symptoms and signs develop in the months of

(Concluded on page 22)

Comments on the Progress of Surgery During the Year 1923

WILLIAM FRANCIS CAMPBELL, M.D., F.A.C.S.,

Brooklyn, N. Y.

Morris has aptly divided the evolution of surgery into four eras according to the dominating characteristic of each period, viz., the "Heroic Era," the "Anatomical Era," the "Pathologic Era," and the "Physiological Era."

It must be apparent to the close observer of surgical trend that the dawn of the "Biologic Era" is at hand, and that surgical progress is ever advancing in this direction. Fundamentals are being accentuated more strongly: a better understanding of pain, rest, immunization, cellular reactions, is replacing the vague empiricism of an antiquated materia medica. The body's own resources can be utilized to cure the body's ills. This applies to medicine and surgery.

Harnsberger asks a pertinent question: *"Why Incise Carbuncles?"* (*Internat. J. Surg.*, 36: 67, Feb., 1923.)

Actual results demonstrate that it is never necessary to open carbuncles with a knife. A preferable technic for making them discharge and heal is carried out by putting an abundance of some good non-poisonous antiseptic powder (boric acid, alum, carbolic acid, menthol, thymol, eucalytol) between 2 or 3 layers of gauze, folded to keep the powder from wasting, and binding gently but firmly enough to keep in place. This should extend beyond the area to be treated. A weak solution of the same powder is then made and the place kept constantly and thoroughly wet to the skin. This will not only reduce the suffering but in 12-48 hours openings will appear and with them a discharge of the noxious contents. Change the dressings as often as required. The weak solution continued locally will as a rule soon heal the abrasion or cavity made at the site of the carbuncle. When the affected part begins to show a new growth of skin an ointment made of the same ingredients may be used. Due attention should of course be given to diet. position, rest and systemic functions. Patients past 90 have responded to this treatment. A tonic composed of the five iodids is always a safe venture, especially with the elderly; or, in lieu of old apple brandy, a dependable make of old French brandy may be used—never whiskey.

Lewis present *"A Conservative Treatment of Carbuncles"* (*Annals of Surgery*, Nov., 1923) and summarizes his conclusions as follows:—

1. Only three reports of carbuncles treated by x-ray were found in the literature.
2. Sixteen unselected cases of carbuncles treated by x-ray are here reported.
3. Only two of these sixteen cases required operative treatment.
4. Diameters of induration increased more than 2 cm. after x-ray treatment in only two cases, and in one of these this was probably due to a too narrow protecting of the field of the x-rays in givings the treatment.
5. Sloughing and suppuration, and the skin sinuses through which this took place, were surprisingly small in the small and moderate sized carbuncles.
6. The very large carbuncles resolved into enormous, sharply demarcated abscesses, which drained satisfactorily through sinuses formed by sloughing of the overlying skin.
7. Pain was relieved following the x-ray treatment in the majority of the cases, but this did not occur invariably.
8. The duration of the small and moderate sized carbuncles seemed much shorter with x-ray therapy than under operative treatment.
9. The duration of the very large carbuncles seemed about the same with x-ray or operative treatment.
10. Cosmetic results of x-ray treatment were far superior to those of operation.
11. Great preference for the x-ray treatment was expressed by patients with experience in other forms of treatment.
12. The method seems relatively safe. The comparative absence of traumatism, as compared with operation, seems a protective measure of importance.

This is obviously too small a series from which to attempt to draw any sweeping conclusions. Moreover, we have in these cases no actual proof of the value of x-ray, since it did not seem justifiable to run any control cases. Nevertheless, from the evidence submitted, we would seem justified in feeling that x-ray exerts a powerful influence on the progress of carbuncle. Though in a few cases operation seems unavoidable, x-ray in the majority of cases appears to bring a speedier cure, gives a far superior cosmetic result, and has been preferred by patients familiar with both methods. The comparative absence of trauma in this method, as compared to operation, is a protective measure. We would therefore conclude that in most cases its use is to be preferred to operation.

Comment

It is difficult to understand how the x-ray treatment or the application of an antiseptic powder can accomplish the satisfactory results of excision when we recall the extensive fascial slough which requires free exit, and which only delays the healing process when not provided with proper drainage.

Rabinowitz makes an important contribution in his *"Experiments on the Infectious Origin of Thrombo-angitis Obliterans and the Isolation of a Specific Organism from the Blood Stream"* (*Surg., Gyn. & Obst., Sept.*, 1923).

The following conclusions have been arrived at, to be checked up by additional blood cultures:

1. The bacillus isolated produced the same lesion in the ears and feet of the rabbit as that which was present in the calf of the leg of the human being.
2. The lesions produced were similar in their gross and microscopic pahtology to that produced in the disease known as thrombo-angitis obliterans.
3. This bacillus was isolated both from the blood of the local affected portion and from the general blood stream.
4. The organism was distinctly haemaglo-binophilic.
5. The bacillus could not be isolated from the body of the leech, therefore eliminating the normal habitat of this organism within the leech.
6. Normal haemolyzed serum (per leech) produced no lesion in the rabbit's ear. The bacillus was therefore responsible for the production of the gross lesions.
7. The clear non-haemolyzed serum derived from the unaffected veins of the elbow in the specified case, produced no lesion in the rabbit's ear. May I venture this explanation: that the bacillus requires haemolyzed blood for cultivation and isolation from the blood stream.

8. Though a bouillon culture produced considerable reaction in the ear of Rabbit 4, the culture containing the solid content of blood, activated the bacillus sufficiently to produce a typical gangrenous lesion in the other ear of Rabbit 4.

9. The appearance of lesions on the plantar surfaces and toes of three rabbits, 5 weeks after inoculation, showed conclusively the entrance of this organism into the general blood stream and, furthermore, a specific tissue predilection.

10. The organism isolated in pure culture from the blood of Case 4 produced a similar gross lesion in the rabbit's ear.

Comment

We believe that this is a most important contribution to the solution of a discouraging, yet fascinating disease. Nothing of permanent value has yet been developed in the treatment of these unfortunate patients. Perchance if the etiology is established as this article portends, we may look for rational therapeusis in the near future.

Coffey and Brown open up a new field in *"The Surgical Treatment of Angina Pectoris"* (*Arch. Int. Med., Feb.* 15, 1923).

Treatment of angina pectoris by resection of the cervical thoracic sympathetic was suggested by Franck in 1899. In 1920 Jonnesco reported the cure in such a case by this operation. He claimed that some chronic aortitis is present in every case of angina, which irritates the cardio-aortic plexus from which sensory fibers pass to the cervico-thoracic sympathetic and reach the medullary and brain centers by (1) the paravertebral chain (2) vertebral nerve, and (3) communicating dorsal branches of the first thoracic ganglion. Jonnesco claimed that simple section of the fibers is insufficient, but that the 2 lower cervical ganglions and the first thoracic must be resected, this suppressing the reflexes from the cardio-aortic plexus and stopping the symptoms. Sudden death in angina seems to be due to spasm of the arteries of the medulla. The vasoconstrictor action on the bulbar vessels by way of the vertebral nerve is suppressed when the cervical thoracic ganglion is resected.

The authors, after numerous dissections on cadavers, agreed, in spite of animal experiment to the contrary, that the cervical sympathetic excited or controlled the phenomena producing angina. Instead of a wholesale dissection, they determined first to sever the important cardiac connections, beginning at the more accessible end. In doing this they recognized fully that physiologists claim that the sensory fibers for the heart have their origin in the spinal ganglions and run through the upper thoracic branches to the stellate ganglions. There is no proof that any branches reach as high as the superior cervical ganglions.

The operation as performed, however, demonstrated that the theory is not correct. The operation determined on consisted in making an incision on the left side, at the posterior border of the sternocleidomastoid muscle, extending from the mastoid prominence along its border to where the external jugular vein crosses this muscle. Then the incision passes through the posterior border of the sternocleidomastoid muscle. The fibers are separated a short distance from the posterior edge, the posterior sheath is opened, which is likewise severed (similar to the line of the separation of the fibers). At the lower angle of the incision, there is a clear space in which blunt scissors are placed and this area of fatty tissue widened with the fingers, exposing the neurovascular bundle. With a retractor the muscle and neurovascular bundle are pulled toward the center of the body and the vertebral plane exposed. The field of operation is enlarged and search made for the sympathetic trunk. The superior cervical ganglion serves as a guide in finding the main trunk. At the lower extremity of the field the main trunk from the ganglion is isolated and severed; likewise the cardiac branches. The ganglion may be removed in its entirety.

The authors describe in detail 5 cases of angina pectoris (2 syphilitic), selected from a large series in which this operation was performed. In 1 of the 5 the entire inferior cervical ganglion was removed; in the others merely the main trunk below the superior cervical ganglion and the superior cardiac branch. In 4 cases 2-7 months have elapsed with practically entire freedom from symptoms.

Sidney Russ presents the results of his experiments in *"New Attempts to Procure Immunity to Malignant Disease in Man"* (*Canad. M. A. J.*, Montreal, 12: 841, Dec., 1922).

In experiments conducted at the Cancer Research Laboratories of the Middlesex Hospital, London, it was found that mouse carcinoma exposed to a sufficient dose of radiation from radium, failed to grow when inoculated into normal mice. When this injection was followed by an inoculation of nonradiated tumor most of the animals proved to be immune, the degree of immunity depending upon the the amount of radiation to which the tumor had been exposed. The immune state is apparently permanent and is not associated with, nor dependent upon, any tumor formation at the site of injection. Two points were strongly brought out by these experiments: (1) that some degree of immunity may result from adequate irradiation of a malignant tumor in the body; (2) that the treatment of a patient with irradiated tumor cells, after surgical removal of the growth, may help to set up a state of resistance to the disease. Attempts have been made during the past year in 30 cases to immunize patients suffering from cancer, against their own tumor cells. The process consists in the removal of the tumor mass by surgical means and its reintroduction into the body of the patient after it has been given twice the lethal dose of radiation. The time that has elapsed is too short to form a decided opinion as to the effect of this treatment on the progress of the disease. All that can be said at present is that, with efficient technical precautions, this method can be followed without causing any tumor formation or serious effects. In almost all cases the stage of the disease rendered any other form of treatment inadvisable. When last seem in January, 1922, these patients were all in good health without evidence of recurrence. A difficulty at present exists in specifying the exact dosage of radiation, a difficulty which it is hoped may be overcome in the near future by the introduction of an international unit of x-ray intensity, so that institutions may have a suitable standard of reference.

Two important articles on cancer of the breast are worthy of more than passing notice: Bloodgood discusses *"The Diagnosis of Early Breast Tumors"* (*Jour. A. M. A.*, Sept., 1923). Summers presents an interesting study of *"Recurrences in Cancer of the Breast"* (*Jour. A. M. A.*, Sept., 1923).

Comment

Bloodgood shows that "the largest percentage of five-year cures and the smallest percentage of recurrences after five years are in the group in which the known duration of the lump was one month or less. The percentage of five-year cures gradually falls, and the percentage of recurrences after five years gradually rises

with each additional two-month period of time up to three years." This statistical study emphasizes the fact that the only controllable factor for the cure of cancer of the breast is the duration of the lump. It is evident that the factor that differentiates a 70% cure from a 5% cure is the time factor—the duration of the disease—how much time elapses between the discovery of the lump and the application of the remedy—a factor entirely within the control of the patient, if sufficient intelligence can be inculcated to appreciate its importance.

In plain words, a woman need not die of cancer of the breast if she seeks scientific relief as soon as she discovers the lump in the breast.

Morrow contributes an excellent article on *"Recurrence of Inguinal Hernia after Operative Treatment"* (*Annals of Surgery,* Oct., 1923), which is summarized as follows:

It is felt that the operative cure of inguinal hernia is not the simple procedure that many surgeons regard it, but is an operation requiring sound surgical judgment, as well as considerable technical skill.

Oblique and direct hernia should be looked upon as two distinct conditions, in both of which recurrence is probably more frequent than was formerly recognized—this being especially true of the direct form.

Improvement in operative results is not likely to come from the development of an operation based upon new principles, but in the elimination of what are considered to be frequent causes of failure to obtain a permanent cure. These are:

(1) Subjecting to operation patients in whom, on account of the type of hernia, and the condition of the parts that must be utilized for repair, there is small chance of obtaining a permanent cure.

(2) The use of an operation which, while adequate in some cases, fails to meet the indications in an individual case.

(3) The failure to thoroughly remove the sac or to recognize and remove a double sac.

(4) Repair of the canal under tension.

(5) Injury to the nerve supply of the inguinal region.

(6) Infection.

(7) Separation of the repaired structures from a failure of the sutures to hold, or from the strain of post-operative vomiting.

Stetten presents a valuable contribution to the technic of hernioplasty in an article, *"Further Observations on a Modified Inguinal Hernioplasty Technic, with Completed Utilization of the Aponeurosis of the External Oblique"* (*Annals of Surgery, July,* 1923).

This is a modified Bassini and Halsted operation, the essential principle of which is the repair of the hernial orifice, by the overlapping beneath the transplanted cord and over the Bassini suture line of the external oblique aponeurosis. The technic of the Bassini operation is carried out until the suturing of the internal oblique to Poupart's ligament is completed. The further techinc consists in suturing the internal leaf of the external oblique to Poupart's ligament and overlapping and suturing the external leaf of the external oblique beneath the transplanted cord.

Comment

The main factor in the techinc of any radical operation for inguinal heria is a recognition of certain fundamental principles, chief of which is that inguinal hernia is a congenital defect. Hernicas are born, not made: hernia is a disease, not an accident, the accident only reveals the disease. And, further, the chief factor in the operative treatment is the ligation and excision of the sac; this done, the further steps in the operation should be selected to suit the individual case. And not least important is the fact that the best results cannot be obtained under general anesthesia. Many beautiful operations have been blasted by the strain of the post-operative vomiting following general anesthesia. Regional anesthesia is the only logical procedure in operating for hernia—not local anesthesia, that belongs in the discard; but the blocking of the nerves supplying the operative field affords perfect analgesia and freedom from the post-operative strain of vomiting.

Haden makes an important contribution in a study of *"Chemical Changes in the Blood of Man after Acute Intestinal Obstruction"* (*Surg., Gyn. & Obst., Oct.,* 1923). He deduces the following conclusions:

1. Definite blood chemical changes are found in acute intestinal obstruction, manifested by a fall in the blood chlorides, often a rise in the carbon dioxide combining power of the plasma and a rise in the non-protein nitrogen.

2. The fall in chlorides is considered the chief factor of this change and indicates that the chlorides may be utilized by the body as a protection against the toxic agent.

3. The administration of sodium chloride in larger doses than that supplied by physiological saline is indicated in acute intestinal obstruction as a means of directly combating the toxaemia.

4. Since an alkalosis is frequently present in intestinal obstruction, alkalies should be administered with caution.

5. We have estimated that in the presence of the toxaemia of intestinal obstruction that sodium chloride as an initial dosage of 1 gram per kilogram of body weight should be administered. The blood and urine chlorides should be closely followed to estimate the subsequent quantity of sodium chloride needed to keep the chlorides at a normal level in the blood.

Darner and Cullen contribute a timely article on *"The End-results in Nearly Three Hundred Cases in which the Gall-bladder was Drained—not Removed"* (*Surg., Gyn. & Obst.,* Nov., 1923), and present the following conclusions:

As far as I have gone, the prevailing opinion among gastro-enterologists about the post-operative complications in gall-bladder surgery seems to be that neither cholecystectomy nor cholecystostomy with drainage will prove satisfactory in all cases, so that it becomes a question of choosing the operative procedure whish will give the highest percentage of recoveries. It is quite certain that in Dr. Cullen's hands the operative procedure described has produced excellent results.

What would have been the results in the present series of cases had cholecystectomy been the routine procedure? One might venture to say that the immediate mortality would have been much higher in the hands of the average surgeon and the percentage of recoveries would have been no better. Recurrences are possible even after cholecystectomy. In the very cases in which the gall-bladder should be removed the patient's condition or the nature of the lesion may make its removal impossible. In these cases cholecystectomy would give a very high immediate mortality, and in case the patient survived, the post-operative complications would probably be just as severe and numerous as after cholecystostomy and drainage. In the very cases in which the gall-bladder can be readily and is most frequently removed, one gets excellent results from drainage. Unfortunately, we have not obtained complete

(Concluded on page 21)

Ophthalmology During 1923

DUNBAR ROY, A.B. M.D. F.A.C.S.

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Very little material advancement has been made in ophthalmology either in operative technique or therapeutics during the past year.

The question of heredity and consanguinity as a cause for blindness has been again prominently mentioned in the eleventh United States Census. Consanguinity is far less important than heredity. A great many medical writers attribute no importance to heredity in the causation of disease but on the other hand it is difficult for the writer to see how such ideas can be maintained if the observations of any medical man through long years of practice are of any value whatever.

The census above mentioned is of 43,326 blind persons. Of this number 19.25% reported blind relatives while of 4,156 congenital blind 38,775 had blind relatives. The disease of the eyes which are most frequently transmitted from parent to offspring are: Coloboma of the iris and choroid, microphthalmia, persistence of the pupillary membrane, congenital cataract and amblyopia, nystagmus, albinism and retinitis pigmentosa.

Myopia is frequently hereditary and according to Motais at least 67.5% cases of myopia come under this head. It seems to the writer that such an observation would lead no one to dispute this statement.

The never ending discussion of blenorrhea in the newborn has been very lucidly considered by W. Mehl in the Medical Record of April, 1922. The far reaching effect of this disease upon the social and physical welfare throughout the world is abundantly recognized by all workers in ophthalmology. Crede's method of the instillation of a solution of nitrate of silver into the eyes of every new-born, has done much to mitigate the frequency of this disease.

Dr. Mehl suggests the following precautions in blennorrhea of the new-born which must be recognized of distinct value.

1—Regard every case of blenorrhea of the new-born as a possible dangerous gono-blennorrhea until microscopic examination of smears have established the absence of gonocci.

2—When suppuration appears it is advisable to apply a 2% solution of nitrate of silver, twice a day until cured. (A less heroic method and we believe just as efficacious is a 1% D.R.)

3—Let it be an absolute requirement whether enforced by the law of the state or not to instill in the eyes of the new-born immediately after cl[illegible]ing a 1% solution of nitrate of silver as a preventative.

4—It is imperative that whatever solution of silver nitrate is used it should be fresh, in no case older than one month, whatever the character or color of the bottle or container may be.

This subject is also clearly discussed in the Bulletin which are issued by the "National Committee for the Prevention of Blindness of New York City."

The question of the differential diagnosis between true trachoma and follicular conjunctivitis has received a great deal of discussion during the last two years due in a large measure to the activities of the National Public Health Service in declaring the prevalence of trachoma in certain centers of the South and to active rebuttal of the propaganda by well-recognized oculists in this section, claiming the cases to be those of folliculosis and not true trachoma. The controversy is still unsettled. The writers in the hot beds of trachoma whose observation and experience cover thousands of cases treated for years admit the difficulty in many cases of making a definite diagnosis.

In South Carolina especially has the discussion of this subject been most intense but after reading the article of Dr. J. W. Jervey of Greenville, S. C., there can be no doubt but that many cases have been diagnosed as true trachoma which in reality were those of folliculosis. The isolation of cases of folliculosis works an extreme and unnecessary hardship on those suffering from this disease and it seems to the writer that the Public Health officials should be thoroughly cognizant of the differential diagnosis of the two diseases before resorting to such active measures of isolation.

Nothing very new has been advanced either in the pathology or therapeutics of diseased conditions of the cornea and sclera. Dr. L. E. Maire in the *Medical Review of Reviews* has discussed very thoroughly the pathology and treatment of ulcer serpens. It has been the writers observation that this intractable corneal lesion is not near so common now as it has been in the past. This is largely due we believe to the fact that slight irritation and inflammation of the eyes are seen early by the ophthalmic surgeon because the State and Public Health Service compels individuals to seek relief for any incipient eye troubles at their slightest manifestation. The management of these cases has been very thoroughly discussed by Dr. Maire and the most efficient line of treatment has been considered in every detail.

The writer believes that just one method of treatment will be found most efficacious. That is the filling of the eye with bichloride vaseline and the application of a real compress bandage together with the use of the mixed vaccines.

A very interesting and painstaking discussion of the pupillary symptoms in general diseases will be found in an article by Dr. M. L. Foster, *New York Medical Journal*, Nov. 16th, 1921. In concluding this most excellent article the author makes these most pertient remarks "We must admit that the behavior of the pupils taken by itself, is an unreliable guide to diagnosis—Nevertheless observation of the pupils when taken in conjunction with the other symptoms present, frequently proves a very valuable aid in the diagnosis of general diseases."

A very interesting case of traumatic aniridia has been reported by Dr. W. B. Hunter in *British Medical Journal*—Nov., 1921. In this case the whole iris was pulled out and nothing but a large black pupil could be seen.

In a very comprehensive article on the "The Etiology of Primary Cataract" Dr. H. Kirkpatrick has published his views in the *British Medical Journal*—March, 1922, which contains much that is worthy of consideration. His conclusions are as follows:

1—The cause of primary cataract is probably a constitutional one.

2—Most of the morbid conditions which are associated with the development of primary cataract, injuriously affects the actions of the endocrine glands.

3—Primary cataracts sometimes follow thyroid and parathyroid deficiencies, and are almost certainly then

caused by a disturbance of endocrine function.

4—Exposure to injurious heat and light rays, and the existence of uncorrected errors of refaction are likely to determine the formation of a cataract in the eye of a person who is predisposed to a degenerative change in his lens fibers by a constitutional defect.

The never ending discussion of the various methods of operating for cataract is still actively before the ophthalmic profession. The writer believes that this will continue to the end of time and finally on the Great Day we will see standing the same array of surgeons which today represent the intro-capsular and the capsular discission operations. After all it is a question of experience and the use of that operation which gives the surgeon personally the large majority of best results.

Some form of the suction method as advocated by Barraquer or Dr. Green of San Francisco, is certainly more suitable for the large majority of the young ophthalmic surgeons and the writer believes that the future will find this method the one more universally adopted.

To the writer one of the dark pages in ophthalmic literature is that in reference to the etiology and treatment of choroidal diseases. Every year he has looked for some discussion or experimental work on this subject which might aid the ophthalmologist in his treatment of this uncertain disease.

To the busy ophthalmologist it is remarkable how frequently he discovers some choroidal changes in the routine of his ophthalmoscopic examinations. And unfortunately in the large majority of cases we are helpless to remove the pathologic conditions but rely on the old remedies which have been used from time immemorial. The writer hopes that some of the young laboratory or physical experimental ophthalmologists will take up the subject of choroidal diseases and see if they cannot rewrite the etiology and treatment of this condition.

Nothing new has been added to our knowledge of the relationship between various ocular diseases and diseased conditions of the accessory nasal sinuses. That there is a relationship is a fact pretty generally recognized by workers in both fields of labor. That this relationship is close or even readily recognized is not so apparent but the subject deserves a further consideration and must always be considered when a diagnosis can only be made by exclusion.

The usual number of articles have appeared dealing with the ever present subject of eye injuries. Nothing new, however, has been added to the sum total of our knowledge. After all, in these cases the experience of the surgeons must be the determining factor in the management of a case.

One of the most illuminating, thoughtful, and practical articles dealing with the subject of penetrating injuries to the eye-ball from particles of steel has appeared from the pen of Dr. Frank Allport in the *Illinois Medical Journal*—July, 1922. This article is so clear, practical and the advice so dependable that it should be read by every ophthalmologist especially the younger men in the profession. Some of the articles we have read on this subject indicate that either that the writer had had no experience personally with this class of cases or he was quoting some other author whose ideas were as equally absurd. This subject requires a great deal of experience to form the proper judgment in the management of such cases.

A very interesting article has been written by Dr. E. Radslob in the *Ann. d'ocul.* Sept., 1921, dealing with the pathology and pathogenesis of sympathetic ophthalmia. Redslob thinks that the fear of sympathetic ophthalmia amounts to a regular phobia and that ophthalmologists too readily accept the transmitted opinion regarding this condition as facts. He says sympathetic ophthalmia is diminishing. In 1905 Fuch's found 14% in 200 enucleated eyes. Redslob found only 3% in 1921.

The author holds that the microbes of sympathetic ophthalmia are saprophytes of the conjunctival sac. This hypothesis is justified by the following findings:

1—Sympathizing lesions are never seen before the other eye is itself attacked by sympathetic ophthalmia.

2—In cases in which the sympathetic infection appears years after the traumatism, very frequently recent lesions are found in both eyes.

3—The so-called sympathizing lesions show their maximum development in the posterior part of the chorioid, and regress toward the anterior part. There is no such thing as "sympathizing and sympathetic," both eyes are "sympathized."

The question of the enucleation of the lachrymal sac for the cure of chronic dachyro-cyclitis is still under discussion. The various forms of the West operation also has its advocates. The writer believes that the external extirpation of the sac will give the best results in the largest number of cases, for the internal operation will still be found difficult of performance and the ability to keep the artificial opening patulous must ever be a detrimental factor in its universal acceptance.

Quite a little has been written on ocular therapeutics. Probably the milk injections for the benefit of certain infections about the eye, has created more diversified comment than any other therapeutic measure which has recently been proposed.

Borgy in *Clin. Ophthal.* Feb., 1922, has gone very extensively into the use of this remedy having had a large experience in the Orient. His report seems to be most favorable and has been using the milk injections as a routine for many months.

L. V. Lieberman in the *Zeitsch f. Augenheilk,* Oct., 1921 is very enthusiastic concerning the milk treatment of eye diseases. The action of milk in gonorrheal ophthalmia he states is incontestable. Cases of iritis respond most readily while purulent corneal ulceras and panophthalmias are rebellious to the milk treatment.

Another enthusiastic observer was Perez. Bufill who used it in twenty cases with almost universally good results. G. Tobias in the *Klin. Wochenschr.* March 11th, 1922, says the remedy is dangerous and should be used with great precaution.

A very exhaustive and clearly presented article on the "Etiologic Relation of the Eye to the Endocrine Organs" was published by W. Zentmayer in *Penn. Med. Journal*—May, 1922. This author goes into the clinical evidences of such a relationship and shows where such does frequently exist and where many of the obscure affections whose etiology was previously unknown, could be attributed to some condition of the endocrine organs. P. Fridenberg in the same journal has also contributed an article of distinct merit along these same lines.

In going through the ophthalmic literature for the past year, the writer is more than ever convinced that the man who looks upon the eye as a distinct entity and not in its relationship to other portions of the human anatomy, will never make the successful ophthalmologist.

402 Grand Opera House.

Advances in Oto-laryngology During 1923

HAROLD HAYS, M.D.; ARTHUR PALMER, M.D.; DIXON AUSTIN, M.D.
New York.

General Topics

Gutmann proved by seventeen experiments on dogs that stimulation of the proximal end of the loop of Galien, i.e., the nerve strip uniting the internal branch of the superior laryngeal in the region of the posterior crico-arytenoid muscle with the inferior laryngeal nerve produced, (a) adduction of the cords, (b) retardation of the respiratory movements. Excitation of the distal end caused no modification.

Bourack in discussing the functions of the tonsils in relation to tonsillectomy concludes that there has been as yet no satisfactory answer to the question of the role played by these organs in the economy of the body. It does not follow from this that they have no influence on the organism. It is true that extensive observations on children deprived of the tonsils by operation have not revealed any disturbance as the result. On the contrary the operation has a beneficial influence on the condition of the blood and on the general state.

Borden after a clinical and pathological study of tonsils subjected to X-ray concludes that irradiation is useful as a means of reducing hemorrhage and of facilitating dissection at operation. By diminishing the oversecretion on the mucous surfaces of the throat it decidedly decreases the possibility of post operative pneumonia or lung abscess. In casese in which the diseased tonsils may be justly suspected of producing secondary infections in the joints, heart, kidney or other important organs, x-ray treatment is inadequate.

Ullmann and Nuzum subjected the tonsils of forty patients to Roentgen irradiation and found that 45% still harbored hemolytic streptococcus following the entire series of exposures.

Williams observes prompt action of radium radiation in the treatment of small and large infected tonsils and lingual tonsils.

Instruments

Kahn describes a new artery clamp for tying off deep tonsillar vessels. One blade is slightly longer than the other. The surplus length is at the tip and prolongs the blade as a sharp needle-like extension which is notched on its inner edge to catch the ligature. Before grasping the bleeding point, the needle-like blade is pushed slightly under the vessel. This movement carries the ligature that is notched on the blade into the tissue beyond and below the bleeding point. The clamp is then closed and a knot is made and carried down beyond the tip, the ligature thus being carried into the tissue distal to the point of the clamp so it cannot touch the end of the clamp when it is tied.

Meyerson has devised a new pharyngeal suction tube of design and dimension such that it can be employed constantly without interfering with the operation and thus remove the blood so rapidly that it does not flow into the tracheo-bronchial tree.

Molinie claims special advantage for his binocular teleloupe in surgical interventions on the posterior ethmoid cells and the sphenoid sinus. An attachment is used thereby giving a clear and enlarged vision of the nasal cavity.

Therapy

Liedermann recommends cresatin in the treatment of diseases of the ear and upper air passages. The action is prompt, its penetrating properties are pronounced, and it is less toxic than the cresol substances. It is especially used in tubercular laryngitis acting as an antiseptic and analgesic, in acute follicular tonsillitis, and for relief of pain in post operative tonsillectomy and in folliculitis of the nasal vestibule.

Wilson administers pituitary extract where there is lack of vascular tone after treatment, and after resection of the turbinates or following submucous resection of the septum. He finds it useful also when hoarseness is due to this same condition. Lymph gland extract will relieve hoarseness and reduce simple thyroid enlargement.

Ferreri subjected thirty patients suffering from tubercular laryngitis to gold treatment. The preparation used was krysolgan, a 4— ameno 2— aurothiophenol-carbonate of sodium, in which the metal is closely bound to the benzol mucleus and rendered atoxic by means of adequate side chains. Of the thirty patients, twenty-one improved, five died, and the result was doubtful in three. One grew worse. The remedy is administered intravenously in doses of 0.05 Gms. repeated every eight to ten days. This therapy must be begun early and is useless if the disease has reached the stage of ulcerated chondro-perichrondritis with general toxemia.

Blegvad reports forty-nine cures in one hundred seventy-eight cases of tubercular laryngitis treated with the Finsen lamp.

Leichsenring has recently exposed, crushed, or divided the recurrent laryngeal nerve in several cases of uni-lateral tuberculosis of the larynx in order to place the vocal cord involved at rest. Regeneration takes place in about six months.

Spiess treats ozena by injection of 8-10cc of blood freshly drawn from the arm vein, under the anesthetized mucosa or perchrondium of the turbinate bones and septum. This artificial hematoma becomes organized and produces a permanent forward protrusion. This method may replace the laborious operative procedure of narrowing the nasal canal the latter method being very onerous to the patient.

Cheinissi has found ethyl-hydro-cuprein useful in the local treatment of hay-fever. A 1% solution is instilled into the eye and fresh 1% cerate or glycerin mixtures may be used in the nose.

Haike reports favorable experience with optochin in hay fever. He employs a fresh solution of optochin hycro-chlorid (not basic); 0.05 Gms. in five grams of boiled water with a few drops of glycerin is employed. This is used both in the conjunctival sac and in the nose.

Operations

Bruggeman advocates the following method of hypopharyngoscopy. He draws the larynx away from the posterior pharyngeal wall from without, by means of a strong silken thread passed through the skin and conical ligament. The patients suffer no discomfort even with strong traction and cocainization of the pharynx is unnecessary for the examination of hypo-pharynx with the osphagoscope.

Adam decribes an operation for atrophic rhinitis, the essential part of which is the transplantation of flakes of cartilage taken from the seventh and eighth costal cartilages. These are introduced by suitable forceps i.e. the Swan-Bill septal punch into pockets made by ele-

vation of the muco-perichrondium. They are usually placed on one side of the septum and the inner antral walls between the middle and lower tubinates.

Lautenschlargar advocates a more radical operation by which the anterior antral wall is chiseled away, the antrum and the ethmoids curetted clean and the inner antral wall fractured inward to narrow the nose, while bone transplants are placed under the mucous membrane along the floor and septum. The object of the operation is two fold; first, to eliminate sinus disease, second, to narrow the nasal cavity.

Lewis advocates the use of celluloid implants in depressed nasal deformities. The technic which he employs is as follows: A vertical incision is made in the lower half of the column nasi, the lips of which are undermined laterally toward the nasal vestibules, then by upward cuts with a pair of small curved blunt scissors the nasal tip is undermined and converted into a hood. With the same scissors introduced on the flat the hood is elevated and the tunnel dissection continued as far as desired toward the infraglabellar notch. The results obtained in this method lead the author to believe that it is hardly possible to exaggerate its advantages.

Israel, on the other hand, states that in the use of transplants for the correction of saddle deformities, cartilage has given the most uniformly good results. It can be moulded and handled with ease and withstand infection without being eventually absorbed.

Howarth describes a frontal operation in which the sinus is opened above the lacrimal groove after the orbital contents have been drawn outward. With a Citellis forceps the floor of the sinus is removed with as little disturbance to the lining mucosa as possible. Next the bone in front of the naso-frontal duct is removed and the ethmoid attacked through the lacrimal groove. Lastly a new naso-frontal duct further forward than the old is formed, a rubber tube is pushed up into this and the incision is closed with fine silk woven gut.

Otology

In the otological field, some interesting work on the Eustachian tube has been done by Bilancioni, endeavoring to ascertain the value of the different theories as to its physiological function, which he groups as follows: (1) The tube is regarded as a means of drainage for the mucous secretions of the tympanic cavity. (2) It serves to assure the renewal of the air in the tympanum. (3) It is an acoustic organ, performing an auxiliary function in the complex mechanism of the transmission of sounds. (4) It serves all of these functions. Using a small sound introduced within the muscular opening of the tube, with its other end attached to a registering membrane, so that the modifications of pressure in the tympanum could be measured, observations were made while the patient performed movements of swallowing, inspiring, expiring and pronouncing vowels. His conclusions corroborate the generally accepted view that the tube is normally closed.

A rare case of naevus pigmentosus of one side of the face including the external ear showed also a bluish-red discoloration of the tympanic membrane extending from the handle of the malleus for some distance into the lower anterior quadrant, the remainder of the membrane being normal. There was also a slight impairment of hearing and a decreased mobility of the tympanic membrane. Nurnberg reports this case because he was unable to find any reference to anomalies of the drum membrane in the literature.

Grove has described the unusual occurrence of a bilateral parotid fistula following mastoid operation. After the first mastoid wound had gradually filled in until almost closed, the patient noticed that the wound became moist whenever she chewed or yawned, and examination showed a small fistula, discharging a thin, limpid secretion in the lower portion of the wound leading forward. When later a mastoid operation had to be done on the other side, the first mastoid wound broke down, and both wounds filled in very slowly because of the lowered resistance of the patient. After they had closed entirely, a small fistula appeared at the lower portion of the second mastoid wound similar to that which had begun two years previously on the other side. Both resisted silver cauterization, but are gradually closing spontaneously.

Spinelli has found in the secretions of chroni. otitis media that an acid-fast bacillus is often present, especially in those cases styled tuberculous on account of their character and course. The bacillus differed from that of Koch both as to morphology and staining properties, resisted all attempts at culture, but was found in the secretions of many patients with tuberculosis heredity and of two with pulmonary tuberculosis. However, granulation tissue from the tympanic cavity of these patients did not cause any pathologic changes when injected into guinea pigs, altho histologic examination of the granulations themselves showed vascularized reticular connective tissue containing lymphocytes, and in one case giant cells. The author calls these affections paratuberculous. Thomsen von Colditz, after much work with tuberculin, draws the following conclusions: (1) A patient with a chronic suppurating ear should always be tested for tuberculosis. (2) when a patient's reaction is positive to the proper tuberculin test, he should be treated with tuberculin, even tho other bacteria are present in the discharge. (3) A patient whose reaction is positive to a tuberculin test should be impressed with the fact that his prognosis is good providing he takes his treatment regularly. (4) A mastoid operation should be done only as a last resort.

In the treatment of scarlet fever otitis, Sokolowskij recommends the intramuscular injection of milk protein, particularly caseosan, and also the local use of anti-streptococcus serum; he has had good results with vaccines, noting a pronounced improvement in 50% of his cases, both in the otitic process and on the general disease.

We have had some very striking results in cases of chronic suppurating ears from the use of ionization of zinc, after the method of Friel. The technique is exceedingly simple, the only apparatus required being an ordinary blue-lamp or other rheostat, a supply of direct current, an electrode to fit into the ear canal, a sponge electrode and a milliamperemeter. Some cases which had resisted all other forms of treatment were dried up with but one treatment of ionization. It is not a cure-all but is of very great value and deserving of more general use.

The good results which we reported last year with the use of neutral acriflavine in similar cases should be much improved upon by the addition of gentian violet to the acriflavine, as worked out by Churchman. He has shown that neutral acriflavine is especially potent against Gram negative organisms, while gentian violet is equally so against the Gram positive ones, and that a mixture of the two dyes in equal proportions when used in a solution of the strength of 1.4000 of each will destroy both kinds of organisms, altho non-toxic to the human body cells. We have not had sufficient experience with this mixture as yet to be able to report any results, beyond the staining up of everything with which it comes in contact.

McCoy, Jarvis and Stokes have all reported favorable results from the use of x-rays in certain forms of deaf-

ness and tinnitus. Stokes states explicitly that this method is not complete, and that while its worth as a remedial measure has been established, it is not to be considered a cure-all and has its limitations. After calling attention to the necessity of first removing pathological conditions in the nose and throat, such as removal of infected tonsils, the establishment of proper ventilation thru the nares, etc., he emphasizes the importance of using a particular type of machine and tube, and adhering strictly to the areas to be radiated, the length and frequency of dosage and incidental treatments with diathermy, high-frequency, inflation with a nebulizer, pneumo-vibration and ultra-violet radiation. He reports 30,000 treatments with no harmful effects noted.

Bonain describes the use of the liquid bearing his name over 25 years of practice in ear nose and throat work; the formula as used still is as follows: Phenol (pure snow or synthetic, not crystals) 1 gm., Menthol 1 gm., Cocain hydrochlorid 1 gm., adrenalin hydrochlorid powder .001 gm. The qualities claimed are (1) Ease of application, a cotton carrier being used. (2) Permanency of solution and properties. (3) It is harmless, not at all caustic when properly prepared, and nontoxic in local applications, even in children. (4) It acts as well on inflamed tissues as on healthy ones, except the skin. (5) Anesthesia is profound and prolonged. (6) It is hemostatic to a certain degree. (7) It is antiseptic. He uses it in the ear for paracentesis and ossiculectomy, and for furuncles of the canal; in the nasal fossae for resection of the turbinates, polypi, ethmoids and the nasal septum; in the pharynx for peritonsillar abscess, lingual abscess and retro-pharyngeal abscess; in the larynx for galvanocautery operations upon tuberculous infiltrations.

Peripheral facial paralysis has been treated by Bourguignon by potassium iodid ionization with intracranial penetration of the current. In order that the current may reach the intracranial portion of the facial nerve, he directs the current thru the soft parts of the eye and ear. A facial electrode soaked in 1% potassium iodid solution is applied on the eye and ear, and a gauze mesh saturated with the same solution is introduced into the meatus as far as the tympanum. A positive electrode soaked in pure water is applied to the back of the neck at the level of the occipito-vertebral orifice. A daily application is made during the first week, and than at longer intervals so that a total of 15 applications are given during the first month, after which the treatment is interrupted for 20 days of physiological reasons. He states that improvement is very rapid, and that it is only exceptionally that more than 30 applications have to be made. He reports success in 7 cases where the so-called complete reaction of degeneration was present. When signs of contracture begin to appear, as they are said to do early in this treatment, he suppresses the part of the negative electrode which is in contact with the muscles of the face, keeping only 2 small electrodes on the eye and ear, and reducing the current to 2-3 milliamperes, discontinuing the treatment altogether shortly after the appearance of contracture.

The treatment of vertigo by adrenalin after the method of Vernet, limiting the cases to vasomotor disturbances of sympathetic origin, has given Barbazan a series of very satisfactory results. He finds it necessary to administer it at long intervals from meals—at least a half hour before food—and without any other medicine, and gives much larger doses than are generally used: 10-25 drops in water twice or thrice a day.

The transfusion of blood either plain or immunized in post-operative mastoid conditions in which there are septic temperatures is highly spoken of by Unger, both in cases with a positive blood culture and without. This procedure is also recommended by Phillips and by Hays, especially where the patient has had a double mastoidectomy, and there is no way to determine whether one sinus or the other is involved.

Dean and Bunch have contributed a study of the tonal ranges in lesions of the acoustic apparatus, and have reached the conclusion that lesions of the acoustic nerve and its end organ are exceedingly common, much more so than are nerve and fundus lesions in ophthalmology. As a rule, it has been those cases with a curve free from irregularities, with a dip in the upper part of the range, that have improved with the removal of foci of infection, treatment of syphilis, etc. Acoustic neuritis is suggested in conditions which are bilateral, with slow onset of deafness, without vertigo and with no gaps or partial gaps in the curve, while suggestive of neuro-labyrinthitis are those in which the onset is sudden, with vertigo and a curve with sharp irregularities, indicative of lesions in Corti's organ.

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Progress in Venereal Disease Control For 1922-1923

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The work of the U. S. Interdepartmental Social Hygiene Board was discontinued during the past year, due to a failure to continue appropriations beyond July 1, 1922, and of Congress to enact a bill providing for the transfer of the protective social functions of this Board to the Department of Justice.

This bill was favorably reported upon by both the Senate and House Committees and will come up again before the next Congress. The sum of $225,000 was appropriated by Congress for the present fiscal year to be administered through the U. S. Public Health Service to aid the states in the treatment of venereal diseases, educational work, and repressive measures. The bill before Congress providing for the control of venereal diseases in the District of Columbia was not acted upon and will again come up before the next Congress. Complete reports with reference to appropriations made in 1923 are not available but all save 3 or 4 states continued their appropriations for venereal disease control.

New Legislation and Law Enforcement

Complete reports regarding legislation are not available but in 21 states progress is reported in obtaining needed law enforcement measures. The League of Nations has gone on record favoring an international study of the traffic in women and children. The requirements of the Sheppard-Towner Bill have been met by most of the states and the work is well under way.

Medical Program

In the report of 1921-22, three projects upon which opinion was sharply divided were mentioned: first, the plan of Pennsylvania to utilize medical prophylaxis as a practical civil measure; second, the efforts of the City of Chicago to open its diagnostic treatment and follow-up services to all citizens; third, the work of the private organization known as the Public Health Institute of Chicago which is endeavoring to demonstrate how far organization in medicine may lower costs for adequate private treatment.

Regarding the promoting of medical prophylaxis as a civil measure, it has been stated by physicians, health officers and druggists that the results which were hoped for have not materialized. The dispensary facilities which were provided by the State for these early treatments were not sought for and consequently these stations had to be closed. There are no reports of which we have any knowledge, referable to the number of prophylactic packets purchased, sold or distributed by the druggists. It seems safe to conclude, however, that the extensive use of the prophylaxis methods advertised and advised has not been productive of the results hoped for.

The Chicago plan of treating all who applied for this service regardless of social status opened all of its clinic facilities to this end. This plan is still in operation and it will be watched. The results of this experiment will be reported upon at a later date.

The experiment of the Public Health Institute in providing expert medical service at a moderate cost has proved most interesting. Since the report of a year ago, this institute has added two centers for treatment. One of them is located in the center of Negro population and is for the exclusive treatment of Negroes. The second addition to their treatment facilities is a center for the treatment of women and children only. In addition to these new treatment facilities the institute has opened a large laboratory and under expert supervision for the conducting of serological and other valuable scientific examinations. The physicians of the State have been requested to make use of the facilities of this laboratory. The schedule of charges for laboratory examinations seems decidedly low when contrasted with those of the commercial laboratories.

At the present time there are upwards of 900 clinics in the United States in which venereal diseases are treated. During the last six months of 1922 there were 64,420 new cases of venereal diseases admitted to the clinics. Syphilis constituted a little more than one-half the total number of cases. The ratios were as follows:

Syphilis	50.7
Gonococcal Infection	45.3
Chancroid	4.

The total number of cases treated for:

Syphillis	32,673
Gonorrhea	29,192
Chancroid	2,555

During this six months' period 1,110,332 treatments were given which included 248,346 doses of arsphenamine. The clinics discharged as non-infectious 31,859 patients or an average of 5,310 discharges a month. The average number of cases reported to the State Boards of Health per month was 27,845. The total number for the six months' period being 167,085. Private physicians, clinics and hospitals constitute the chief sources of these reports.

Reports from individual clinics show that whereas the new cases are fewer more ancient cases are being discovered and placed under treatment. These late cases stay under treatment a longer time than was reported a year ago. A number of syphilologists have made the statement that they see very few initial lesions of syphilis and that the cases of acute gonococcal urethritis are falling off.

In a questionnaire sent out by the U. S. P. H. S. to 200 of the leading dermatologists and urologists, 49 per cent gave it as their opinion that the venereal diseases were decreasing, 22 per cent that they were increasing, and the remaining 29 per cent that there had ben no change in the incidence. The reasons given by the 49 per cent who thought the venereal diseases were on the decrease are interesting. Education and publicity were thought by a number to have been a direct cause. Another group suggested that the general use of prophylaxis had a decided effect in the reduction and economic factors were mentioned. Also it is pointed out that there are many more physicians treating the venereal diseases than formerly. The free clinic was blamed by some of the syphilologists for the apparent small number of cases seen by the specialist. The druggist was blamed by some of the physicians as they thought that by prescribing treatment for venereal patients they minimized the results.

On the whole, there seems to be a tendency towards a decrease in acute venereal disease infections

treated the past year. There is evidence of an increase in the chronic venereal disease infections.

The Scientific Exhibit of the American Social Hygiene Association at the San Francisco meeting of the American Medical Association was one of the important features of the venereal disease program in the United States during the past year. The exhibition showed concretely, some of the results developed from the scientific researches which are now being carried on in this country. More than 2,000 physicians who attended this convention visited the exhibit and studied this material. Hundreds of reprints were distributed.

Out of the $285,000 which was set aside by Federal appropriation for the discovering of more effective medical measures in the prevention and treatment of the venereal diseases, it is conservative to estimate that twice this sum has been put into the research problems, the money being provided from other sources. There have been upwards of 200 articles in the literature on researches which have been wholly or partially subsidized from these funds.

An exhaustive study of all phases of municipal health department procedure in the 83 largest cities of the United States, was undertaken by the Committee on Municipal Health Department Practice of the American Public Health Association, and the Report on Venereal Disease Control shows the progress made since 1913. The present study shows that by the end of 1920 some program for combating venereal diseases had been organized in each of the 83 cities reported upon. This is rather a contrast with the figures for 1913 when over six-sevenths of the 227 largest cities at the time had no program against the venereal diseases, and only 28 cities, or less than one-seventh of the entire group reported some effort more aggressive than free laboratory diagnosis. On the basis of this, a model plan for venereal disease control was outlined.

Educational Activities

Educational activities are in general directed toward the right attitude in the adults toward sex education for youth, and the educating of youth in the facts of sex. Both these aspects are receiving increasing attention. A conference of religious leaders on the subject of the church and social hygiene education was held in New York City during March, 1923, at which representatives of churches and religious organizations adopted recommendations urging appropriate sex social education through theological schools, the religious press, the denominational agencies, pastors, and church schools.

At the February session of the National Education Association, aspects of sex education were presented to the sections of school hygiene, secondary school principals, city training schools and deans of women. These sections were large and were attended mainly by administrators and officials, hence the groups were important.

The National League of Women Voters and the National Parent Teacher Association both carried on practical programs on methods in sex education, and on social hygiene generally.

Recreational and Protective Measures

The outstanding events of the past year in the progress of recreation and play in the country, are as follows:

1. The formation of the National Amateur Federation. This Federation is an organization of existing associations, aiming to secure and maintain common high standards of athletic procedure for adults. It has already exercised an influence toward better play conditions for children.

2. The further enactment of state laws for physical education so that there are now 32 states with such legislation.

3. The Conference on Athletics for Women called by Mrs. Herbert Hoover, in Washington last spring. This Conference brought together a number of the women of the United States most prominently interested in the problems of play for children, girls and women. A program of investigation and later report was laid out along lines of physiological, psychological, and sociological research that would seem to work for rational progress. This meeting had a direct safeguarding relationship to the problem of protecting girls and women from exploitation in athletics. Plans are laid for the administration of women's athletic contests.

4. The Playground and Recreation Association of America has continued its field service in physical education. The service has had much to do with recent state legislation for physical education. The Association reports a notable increase in community interest in recreation and play in various parts of the country.

International Affairs

Educational, religious, and health leaders in the Philippines have banded together in the formation of the Philippines Social Hygiene Association. A survey of health and social conditions is being planned.

The 1923 Report on the Venereal Diseases in the Czechoslovak Republic, issued by the Division of Study and Reform of Health Activities, the Ministry of Public Health and Physical Education, indicates that Czechoslovakia has adopted the newest developments in venereal disease control, and the officials are confident that their control measures are producing results.

An international inquiry into the status of sex education was undertaken by a group of European countries including England, France, Holland, and Belgium. While all the findings are not available as yet, indications are that there is a general development toward American standards, which seem to be in the fore.

The report of the Trevethin Committee, in England, which was formed to study the medical control of venereal diseases, especially immediate self-disinfection, has served to conciliate the two voluntary organizations of that country.

According to a new venereal disease control law passed by the German Reichstag, the District Boards are authorized to compel persons suspected of infection either to undergo treatment or prove that they are not ill.

The Trend

Development in this year's activities seem to indicate more than ever the tendency toward not only national but international cooperation in combating the common foe, venereal diseases. In the United States many of the states have realized and acknowledged their individual duty by standardizing and by subsidizing for social hygiene activities, but there are still some whose efforts are not comparable with those in other fields of public health endeavor.

In spite of the many gaps and inadequacies in the venereal disease program indications are that gonococcal and spirochetal infections are on the decrease.

Progress in the Dispensary Field

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In our comments upon the dispensary field a year ago, in the MEDICAL TIMES, we indicated that the outstanding feature of the year 1922 was the study of dispensaries and the report thereon, made by the Council on Medical Education and Hospitals of the American Medical Association, and we quoted the closing observations of the report, which were:

"1. There is a steady increase in the number of patients seeking treatment in general dispensaries.

"2. There has been an unprecedented increase since the war in the number of special clinics and dispensaries, such as those for tuberculosis, venereal disease, mental hygiene and child hygiene.

"3. There is a great need for individualized study and treatment of dispensary patients, to counteract what seems to be a prevailing tendency to routinization.

"4. There is need of a closer bond between the out-patient service and the other service of hospitals, and this will be best met by having the hospital and the out-patient staffs identical and by having unified records.

"5. In the matter of finances there is an increasing tendency to charge nominal fees, thereby placing part of the cost of an institution on the patient.

"6. A general increase is noted in the use of social service workers to see that patients continue their treatment, and to investigate their social and financial status so as to prevent pauperizing.

"7. The difficulty of securing satisfactory data is increased by the inadequacy of clinical and office record systems in a large number of institutions.

"8. There is a great and increasing amount of educational work, especially the teaching of interns, medical students, graduates and pupil nurses."

There is probably no one single item for the year 1923 which marks a particular milestone in the dispensary field. All the observations quoted above remain true for the year just passed. It is noticeable that the trend of thought on the part of both dispensary executive and professional staff member is away from complaint about the demands made on the dispensary and towards increasing the service to the community and the patient.

Dispensary abuse by the well-to-do and dispensary competition with the private practitioner are problems which are being met by better organization of dispensaries. Integration of the out-patient department and the hospital, improved relation to the community as a whole, better policies in the admission of patients, increased facilities for diagnosis, practical and sane social service are aids to the physician, enabling the carrying to a proper conclusion his prescribed remedies and treatment, so that the individual patient has a chance to return to an approximation of full working capacity.

Another interesting observation is that the most active interest during 1923 has been the general medical service rendered, rather than the further development in greater detail of the specialties. This is a healthy sign. One may seriously hope that it is an index of what is happening in medicine generally. There are signs of a healthy reaction against super-specialism and routine standardization. Standardization may be sound enough when applied to automobiles and other mechanical devices, but is quite inapplicable to a human being.

The patient as an entity is going to have a chance in the dispensary of the future if the evidence of change and improvement in the dispensary field at the present time means anything and the physician who retains his active interest in dispensary work will profit accordingly.

At the same time, and not incompatibly either, there is greater development noted in the field of special service clinics. Metabolism in its various subdivisions is being given greater consideration through special clinics in nutrition, diabetes, overweight and underweight classes and the like. Immunization is becoming a feature as shown by special facilities for the Schick test, for vaccination against small pox, for protein sensitization and similar work.

The diagnostic clinic is becoming more of a feature in the dispensary of to-day and closely related is the determination of the mental and physical capacity of the individual who is the client of a charitable relief agency. As it is discovered that alcohol and other things are not necessarily the producers of poverty, and as consideration is given to the mental and physical handicaps of patients, the dispensary is finding itself assuming the role of "family physician" to the charitable agencies engaged in the relief of poverty in the community.

For generations the dispensary has been endeavoring to struggle upward from the cellar in which it was originally housed. There is increasing evidence throughout the country that better quarters are being provided, or are on the way. New buildings planned for dispensary purposes are being constructed. The orphan is finally coming into its own. The physician of the future is quite likely to find himself working under more satisfactory conditions as to space and equipment.

The Committee on Out-Patient Work of the American Hospital Association presented, as its annual report to the Association, a statement of "Ideals and Policies for the Administration of Clinics doing Out-Patient Work." These give consideration to the function, relationship, organization, and procedure which should be considered by an institution properly equipped to care for the sick who are unable to afford private medical facilities. These "Ideals and Policies" are very similar to the practical standards circulated a year ago by the Associated Out-Patient Clinics of the City of New York, which covered relationship of the institution to the community and the hospital, organization from the standpoint of the institution as a whole, both medical and non-medical, facilities which should be provided and procedure which should be followed in the admission of patients, the establishment of fees, the keeping of records, and the instruction and follow-up of patients.

The discussion of procedure which has been quite general throughout the country has resulted in greater consideration of the work to be done by both the physicians working in the clinics and the administrators and supporters of the dispensaries. The coming year will see continued effort and thought devoted to the problem which may well be summed up by quoting the statement of "Function" as embodied in the "Ideals and Policies" of the Committee on Out-Patient Work of the American Hospital Association:

(Concluded on page 21)

X-Ray in the Restoration of Hearing

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A considerable amount of the damage usually conferred upon the structures of the internal and middle ear in consequence of the various infections generally etiologic in producing deafness, is found to involve the lining membranes, which show a lymphatic and connective tissue hyperplasia. Because of the inaccessibility of these changed structures, the ordinary and orthodox treatment practiced by the otologist fails to afford any significant relief, and the impairment of hearing is, therefore, little if any, improved. Cases of this sort, owing to their relative frequency, require an entirely new therapeutic attach; and, I have elsewhere written (1) do extraordinarily well under a form of x-ray treatment about to be described.

Having first estimated, through the use of the various tuning fork tests and particularly by a distance measure of the perception of the spoken and whispered voice, the extent of impaired hearing, and having determined the involved structures, whenever possible, and thus established the differential diagnosis of the condition, the usual otologic measures are pursued in accordance with the precepts of existing accredited practice. This phase is excellently discussed in many text-books devoted to the subject and need not be reproduced here.

After this otologic treatment, the ear passages are subjected to what I have designated a "sclerolytic" x-ray dose, which has for its factors the following values:—

Milliamperes	5
Kilovolts	80
Tube skin distance	15 inches
Filter, aluminum	1 millimeter
Time	9 minutes (4½ in each ear)

In applying this dose, the patient may rest upon the x-ray table, ventrally, the head inclined to the right. Adequate leaded-leather protection is placed over the patient so as to cover all by the head. Over the head a square of lead foil is placed which carries an ovoid opening about ½ by ¾ inches in its diameters. The opening is placed over the external meatus, which is thus exposed. Following the exposure just mentioned, the head is turned to the left and the other ear is similarly treated.

No immediate improvement in the hearing sensibility is registered after this treatment; but as the hyperplastic tissues reduce, the hearing is increased. Exposures are repeated not oftener than every two weeks, and may be given for 6 or 8 sittings.

As quickly as the thickened tissues are resolved by the sclerolytic x-ray dose, the patient notices a greater registration of spoken voices; and this subjective improvement may be confirmed by an increased response to the various acoumeter and tuning fork measures.

Quite often, adenoid tissue encroaches upon the wall of the Eustachian tube and occuldes its lumen. This loss of patency subscribes to the impaired hearing. But after one or two sclerolytic x-ray doses, the tissue is sufficiently shrunk to allow a nearly complete restoration of the Eustachian lumen; and with this restoration, the hearing becomes definitely and markedly improved.

Whenever impaired hearing has existed for sometime, the threshold of the hearing sensorium becomes heightened so that the transmission and registration of sounds is lost. This loss soon impairs the neural sensibility of the hearing and associated cortical centers. I have many times observed this dulling of the hearing sense in which habit, inattention, or minor pathologies such as impacted cerumen have been completely chargeable for the defect; and this factor of neural sensibility is a much neglected though quite ubiquitious symptom for which no recognized treatment has been formulated. Long protracted doses of x-ray have influenced nerve fibres leading ultimately to the perineuritis, or even neuritis. In the case of the auditory nerve, it has been impossible for me to treat with the x-ray sufficiently to engender a neuritis, without first observing detrimental skin effects. So that the probability of severe nerve influence is practically precluded by this means.

As distinguished from the oppressive and cellular disintegrating effects of large x-ray doses, it is generally recognized that much smaller x-ray doses impart instead effects of stimulations. Upon this premise, it seemed wise to exhibit stimulative x-ray doses over the hearing and associated centers and in the region of the auditory nerve. Trial and error showed the following dose to be most efficacious for this effect.

Stabilized milliamperes	8
Kilovolts	50
Tube skin distance	24 inches
Filter, equivalent of 1 milliampere aluminum	
Time	12 seconds (3 seconds over each port.)

This is distributed over the entire head by directing the energy through four portals of entry. Only for the purpose of convenience, the central target may be taken as the sella turcica; and with this as the guiding landmark, the portals of entry become

(a) on the left, behind the mastoid, the central ray passing in the direction of a line joining the mastoid tip and the sella turcica;
(b) from above, the central ray passing into the skull in the direction of a line joining the anterior fontanel and the sella turcica;
(c) on the right, behind the mastoid, as far the left side (see a);
(d) from behind, the central ray passing along a line joining the occipital protuberence with the sella turcica.

Through some mechanism that must yet be discovered, this stimulative dose accomplishes two important changes. First, and nearly always, it quickly relieves the "tinnitus aurium." This is, of course, highly desirable and most pleasing to the patient. Then, the hearing sensorium threshold is lowered, usually after a few exposures, so that the patient noticeably registers and understands more conversation.

Following my experience in over 600 cases, my treatment of impaired hearing has assumed three steps:

(1) Usual otologic procedures;
(2) Sclerolytic x-ray dose;
(3) Stimulative x-ray dose.

I still consider the x-ray applications as purely adjuvant to the otologic measures, and it is my opinion that the entire treatment more properly belongs to the ear, nose and throat specialist. On the basis of this rather vast experience, I may record the following observations:—

(a) I cannot discover that the original pathology plays any obviously determining role with respect to the efficiency of the treatment.

(b) Improvement, when it occurs, is either astonishingly immediate, or is for some time latent, becoming apparent only after several treatments.

(c) Improvement is at times followed by relapse, which has not in my experience ever reached the low level of the original deafness. The gain is apparently a progressive series of steps.

(d) Improvement is most usually manifested in an increased power to interpret the conversational voice; next for music in its various orchestral forms; lastly for metallic sounds, such as the ringing of church bells, telephone bells, and similar previously undetected sounds. Occasionally a patient will show increased acuity for everything except the voice, a situation quickly recognized by the tuning fork and acoumeter tests.

(e) The most striking subjective betterment is the very general disappearance of tinnitus aurium. This is most pleasing to the patient, as it is the first symptom, and a most distressing one, which is dispelled. There are cases, however, in which the tinnitus is not materially decreased, and in an exceptionally few instances there are complaints of increased head noises.

(f) My present records show improvement, varying from slight degree to a complete cure, in not less than 60 per cent of the cases treated, which must be regarded as a gratifying result.

(g) The treatment is entirely free from any harm to the patient.

Realizing the need for much improvement in the older treatment of impaired hearing, and having seen such remarkably gratifying restorations since the addition of the sclerolytic and stimulative x-ray doses, it seems to me conservative to urge serious consideration to the complementing of orthodox measures by these newly devised x-ray adjuvant treatments. In my own practice, it has immeasurably increased my ability to deal more satisfactorily with the ever increasing and economically drastic condition of lost hearing; and I am definitely able to ascribe to the method that I now use, a tremendous sociologic uplift that come in consequence of the partial and complete restoration of the immensely important sense of hearing.

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Medical Phases of European Student Relief in Russia

One of the most disastrous results of the war and the civil revolutions in Russia between 1918 and 1922 was the mobilization of the physicians of Russia for military service and the consequent neglect of medical assistance for the country population. Student groups suffered particularly, tuberculosis making great headway among them.

After the demobilization of Russian armies, the physicians had to return to their old towns and there attempt to build up practices in the face of lack of food, overcrowded rooming quarters and the high cost of medical equipment. Even with some medical assistance available, students were not able to pay for proper care. The result was that great numbers of them were forced to drop their university courses.

In 1920, when conditions were deplorable for these students, the European Student Relief, in co-operation with the A. R. A., began giving the needed assistance. The A. R. A. started with the opening of kitchens for children and sick people. Later, under the stimulus of the E. S. R., came the student kitchens in the universities, which gave such valuable assistance in the way of restoring the health of the students that many who would otherwise have dropped out continued their university studies. Relief was also extended by the A. R. A. to the Russian physicians, many of whom were starving and in very poor health.

Relief Measures

Medical assistance to Russian students was an important relief measure adopted by the A. R. A. and carried on later by the European Student Relief. The crowded conditions in the university town made the spread of disease inevitable. Tuberculosis is shockingly common among the students.

The dry feeding plan originated because of numerous requests coming from students and professors whose peculiar needs could not be satisfied by a card to one of the E. S. R. dining rooms. It was disheartening for European Student Relief workers to have to turn away many students suffering from the first stages of tuberculosis, or the after effects of typhus, or the abdominal disorders resulting from partial starvation, because of insufficient funds for relief work.

A special allotment of food was worked out, selected for its digestibility and nourishing qualities: One pound of cocoa, two and a half pounds sugar, thirty pounds flour and twelve cans of milk. The need among the sick students for these allotments is still very great, but the E. S. R. is relying on the hope that funds raised this fall by the Student Friendship Fund campaign in American schools and colleges will in some degree meet the large number of cases. The need last winter was far beyond the supplies at hand.

Another kind of relief carried on by the A. R. A. was the dispensing of medicines free of charge. There is an increased demand for medicines through the winter months. Since the recent withdrawal of the A. R. A. from Russia, the student population is relying to a large extent upon the aid of the European Student Relief, which is carrying out the medical program arranged by the A. R. A.

Russian Medical Schools

The war and revolution in Russia placed the medical schools in a very difficult position, restricting to the minimum their financial resources. Larger numbers of students were admitted than before the war and in many cases there was a lack of scientific preparedness for the work and a prevalence of financial resourcelessness.

At the present time considerable improvement is noticeable in all respects and it may be expected that the schools will soon get back to normal. This hope is based on the facts that scientific work did not discontinue even in the most unfavorable times, that there is a progressive increase of funds assigned to schools, and that there is an increase in intensity of the students' work.

For a time, however, when government stipends for students were withdrawn, conditions became deplorable. Even now, students are forced to spend a large part of their time earning their living as well as studying. A woman medical student of Moscow recently came into the Students' Dispensary for medical attention. It was found that she hires out two or three days a week as washwoman for private families and attends lectures at night after 6. p. m.

In the face of privation, medical students in Russia have "carried on" in the field of medical research and science with admirable courage. In the midst of war, the Student Surgical Circle of Ekaternoslav was founded by a young medical student who became so enthusiastic a worker for the Circle that he was forced to leave the medical institute because of low gradings. The Student Circle is now a well organized institution, supplied with books and instruments and medicines and a thriving vivisection clinic.

Fight Against Tuberculosis

In general, it may be said that half of the youth of Russia suffers from tuberculosis. A large number of these belong to the student group and in the majority of cases the disease is traceable to under-nourishment, shortage of proper clothes, unsanitary living conditions and inability to pay for or to receive proper medical attention.

The European Student Relief is doing everything possible to improve the living conditions of students but more funds are urgently needed if the Russian youth is to be saved from tuberculosis.

The relief program aims to provide students with clean, well ventilated rooms, furniture, heat and light and a healthful and ample food supply. It aims to begin regular and effective treatment of students already infected. It is urgently necessary to have sanatoria, where during the summer students could recover or improve their health. It is also necessary to have a special dispensary for tubercular students.

A New Epidemic at Kiev

The Ukraine has had its devastating scourges of typhus and chorera and in lesser degree has been swept by influenza and malaria, but it remained for the Student Clinic of the European Student Relief in Kiev to experience the newest and as yet unnamed epidemic.

The existence of the new disease was first discovered in the late summer, when the number of students suffering from rheumatism and minor injuries to the feet and hands increased to three or four cases a day. A student of the Theatrical Institute complained that he could not dance because of rheumatic pains. A medical student said that his swollen hands could not hold the laboratory instruments and asked for relief.

It was an unusually cold and rainy summer, but how account for the many cases of rheumatism among young men of student age? And there are always occasional cases of injured feet, for hundreds of the Kiev students are forced to go barefoot or with feet wrapped in rags or straw, and more than one student swelters under a July sun in the heavy felt valonkies of mid-winter. But the new epidemic brought its repeated daily cases of students with hands cut and raw, with feet swollen from apparently small scratches that refused to heal.

At last the source was disclosed.

To the doctor's question: "Where do you work?" came the unfailing answer: "Unloading logs in the harbor."

Past the "mother of Russian Cities" flows the Dnieper and drifting down its broad current are such log rafts as Tom Sawyer must have ridden in dreamy days on the Mississippi. But for the students they are no dream, but a vivid reality. Living on one meal a day served at a student kitchen, many students are unable to earn the nominal fee of twenty cents a month charged to cover the cost of service. To such students the opportunity of earning a few roubles comes as a Godsend and more than a hundred of them are working at this unaccustomed labor.

Standing all day waist deep in water, shouldering heavy birch logs with strength weakened by underfeeding, cutting their feet on bark and splinters because they have no shoes or because their feet can be healed but shoes cost a month's wages—no wonder they are suffering from rheumatism and accidents are frequent and the wounds infected with muddy river water refuse to heal.

Extent of European Student Relief

The European Student Relief came into existence three years ago to aid the students and professors in the universities of Russia, Central Europe and the Near East, who are struggling to maintain the educational centers of Europe which the war threatened to disrupt. The Student Friendship Fund has been strongly endorsed by Herbert Hoover and many prominent educators in the country.

The European Student Relief is a world-wide student undertaking, the contributing countries numbering thirty-six and the countries receiving aid numbering seventeen. Over five hundred and eighty American schools and colleges are participating in the work of the Fund, quite a number of them being medical institutions.

The relief policy stresses the promotion of self-help and insists that students shall do everything possible to help themselves.

There is at present a great need of further stabilizing the self-help enterprises because of the continued depreciation of currency in Central European countries jeopardizing the existence of these organizations.

Other important reasons necessitating immediate relief are the persisting distress among the Russian intelligentsia, although the famine is largely passed, and the large number of refugee students in Europe who need supplementary assistance in order that they may complete the training necessary if they are to play a part in the reconstruction of Europe.

Student Friendship Fund campaigns are now being conducted all over the country for European Student Relief. Headquarters for the Fund are at 347 Madison Avenue, New York.

THE TREATMENT OF DIABETES

J. W. REDWAY,
Mount Vernon, N. Y.

Intarvin—literally, intermediate fat—is not a curative of diabetes; it is merely a fat which in the process of digestion will not and probably cannot yield aceto-acetic acid, an organic acid to which the acidosis, or, more modernly, ketosis, of diabetes is due.

The suggestion that the chemical breaking of certain fat molecules and the production of aceto-acetic acid and other ketone bodies might be the cause of acidosis came from a German pathologist and chemist, Knoopf (or Knoop) nearly two decades ago. With the research of Dr. Max Kahn, this suggestion has become practically a certainty. Moreover it is extremely interesting from the fact that it is an association of bio-chemistry and practical arithmetic. To understand the theory one must begin with the natural fats of food stuffs. They are acids combined with glycerol as a base. One may represent the structure of such a fat by the symbol C_{18} H_{36} O_2. Now a fat molecule of the sort is top heavy and unstable. In breaking up in the process of digestion less complex molecules are formed and the radical combinations, rather complex in themselves, contain each two carbon atoms. The end of the dissolution of the fat molecule is a series of acids containing four carbon atoms, of which the important one is aceto-acetic acid.

Now, it is evident that a fat acid, losing its carbon atoms two at a time, sooner or later will be reduced to a 4-carbon atom compound, and also that this compound is pretty certain to be a blood poison. So it became the task of Dr. Kahn to construct a fat which contained an odd instead of an even number of carbon atoms—say, one having the structure C_{17} H_{34} O_2. Evidently—in theory, anyway—the breaking of such a molecule cannot leave a 4-carbon atom acid, such as aceto-acetic, or as betaoxybutyric acid. Hence such a fat is a possible food for a diabetic patient. It is not a curative nor is it a medicine; it is merely a fat—and a substitute for a natural fat—that cannot be broken into a compound which produces a blood poison.

It is well to bear in mind that a fat acid and not sugar produces acidosis. The fat acids do not oxidize thoroughly unless oxidized in the presence of sugar and also along with sugar. But sugar to a diabetic patient is verboten; hence the imperfect combustion of the natural fat acids. This certainly has become an established fact in the case of cane sugar and of artificial grape sugar or glucose. There are still possibilities in the use of honey, a natural grape sugar, which has not been devitalized by "refining" processes. The search for a natural sugar—say, on the order of milk sugar—which will burn the fat acids without leaving a 4-carbon atom compound and not kill the patient is not a hopeless search.

In his research work Dr. Nolan and Professor McKee were associated with Dr. Kahn. The former is a distinguished pathologist; the latter an eminent chemist. And it is a pleasant day when the pathologist joins in partnership with the chemist. Incidentally, as it was pointed out in a previous number of MEDICAL TIMES, intarvin is the only real oleomargarine yet produced. The better substitutes masquerading under this name are oleo-palmitate and oleo-stearate—almost always a mixture of the two.

Achlorhydria or hypo-acidity occurred in 45 per cent. of 192 patients with gallstone disease whose histories were analyzed by Gatewood, Chicago. The incidence of achlorhydria is not significantly influenced by age, jaundice, or by the location of the stone.

The Physician's Library

Diseases of the Skin—By Frank C. Knowles, M. D., Jefferson Medical College. Cloth; 595 pages. Philadelphia: Lea & Febiger, 1923.

The field of dermatology is changing and men are realizing the great importance of dermatological work. The last few years have seen marked advance in the study of skin conditions. To meet this advance Dr. Knowles has presented a second edition of his excellent book and one cannot but be impressed by the clear, succinct manner in which he has presented his subject, and edified by the unusually good illustrations. The author has indulged in no verbosity. He has presented his subject so that he who wants may read.

Local Anasthesia—By Prof. Hans Finsterer, of Vienna. Translated by Dr. Joseph P. F. Burke, Buffalo. 350 pages. New York: Rebman Company, 1923.

This book is devoted to the methods and results of local anesthesia in abdominal surgery. The author first takes up the development of local anesthesia, together with its indications and contraindications. He then goes on to the consideration of solutions and technic, the method of anesthetizing in minor operations, in operations of medium severity, and in major operations. The subject is very well covered and we can imagine that in the original text it could be regarded as a most outstanding volume. Unfortunately, the translator has made the error of giving us an almost literal translation in places, so that what is very excellent German becomes poor English, with the cart oftentimes before the horse. If the reader will overlook these facts he will find that he has a volume which will give him a tremendous amount of insight into the utilization of novocain instead of general narcosis in abdominal surgery.

To Finsterer we owe very many of the advances in the utilization of local anesthesia in major work, and it is to be hoped that the second edition will more clearly represent Finsterer's meaning.

The 42 illustrations add materially to the value of the book.

The Examination of Patients—By Nellis B. Foster, M. D., Associate Professor of Medicine at Cornell University. 253 pages. Philadelphia: W. B. Saunders Company, 1923.

Nothing can be more important than the proper examination of the patient. By proper we mean not only accurate but absolutely thorough. Too many cases these days are treated symptomatically without looking into the fundamental cause of the condition. The results are that neither the patient nor the physician is satisfied.

To obviate such a state Dr. Foster has presented a textbook which gives a thorough insight into the proper physical examination of a patient. The name of the book tells the story and the contents thereof should be in the mind of every practising physician.

Treatment of Diabetes Mellitus—By Elliott P. Joslin, M. D., Harvard Medical School. Cloth; 784 pages. Philadelphia: Lea & Febiger, 1923.

The third edition is welcomed because of the advent of insulin since the previous edition appeared. As is to be expected, the entire first section is devoted to the study of Banting's product. It shows what we may expect of insulin and makes us realize that the use of the drug is in its infancy, and we doubt not that ten years from now it will have found its proper place in diabetic treatment.

This book continues to be the standard of its kind and is one which the physician who is treating diabetes must utilize if he is to handle his patients along the very latest lines known to medical science.

The New Dietetics—By John H. Kellogg, M. D., Superintendent, Battle Creek Sanitarium. 1021 pages. Battle Creek, Mich.: Modern Medicine Publishing Co., 1923.

This book is an encyclopedia of food and nutrition and it goes in great detail into the subject of the dietetics of health and disease. Realizing that the subject is a comparatively new one, the author has possibly been more elementary than he would otherwise. The fact remains there is very little along the lines of proper eating that cannot be found within the two covers of this volume. It is not necessarily intended for physicians—dietitians and housewives would be equally well satisfied with the information given.

Dr. Kellogg has done service in presenting this book, because all of his recommendations are based on clearly defined physiologic facts and indications.

(Concluded on page 22)

The Medical Times

A MONTHLY JOURNAL
OF
Medicine, Surgery and the Collateral Science
ESTABLISHED IN 1872

EDITED BY
H. SHERIDAN BAKETEL, A.M., M.D., F.A.C.P.
ARTHUR C. JACOBSON, M.D.
Associate Editor.

Contributions.—EXCLUSIVE PUBLICATION: Articles are accepted for publication on condition that they are contributed solely to this publication.

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SINGLE COPIES, 25 CENTS

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MEDICAL TIMES CO.
ROMAINE PIERSON, *President*
H. SHERIDAN BAKETEL, *Treasurer*
GEORGE B. CREVELING, *Secretary*

95 Nassau Street - - - New York

NEW YORK, JANUARY, 1924

The Diploma Scandal

Perhaps the worst phase of the fake medical diploma scandal is the part played by the "graduates" in the booze and dope situation. An "M. D." who has purchased his "credentials" may be depended upon to engage in the liquor and drug traffic; he must be an essential accessory in this industry. Such activities probably overshadow his doings as a practitioner in the ordinary sense, and are presumably the prime reason why he seeks his bogus status. This phase of the matter appears to have received little or no consideration. The cleaning up of this malodorous scandal should lessen crime in its liquor and drug aspects.

The vultures who sell this brand of credentials are bootlegging education. Why should this not be covered by "enforcement" acts?

Of course, so long as we fail to train a sufficient number of general practitioners the demand for doctors will be met by freak schools. There is a scarcity of general practitioners in many parts of the country, and this is at the bottom of much of our trouble.

Professor John Martin Gale, Dean of the Medical School of Dartmouth College (*Medical Economics*, Nov., 1923), suggests that the movement for reform in medical education may by its very momentum have been carried beyond the mark aimed at, so that certain reflex ill effects have followed. He thinks it is possibly time for the profession to consider seriously the present situation lest it get out of hand and a riot of inefficient schools again occur, or a popular demand for State or socialized medical practice gain such headway that it becomes a fact. We need more medical schools requiring shorter and less expensive preliminary and professional education and devoting themselves specifically to the production of good doctors, able to deal with most of the cases that arise in their fields of practice.

The Registration Issue Again

A determined attempt is to be made in the next Legislature to compel annual re-registration of the profession, through an amendment to the Medical Practice Act. The ostensible object is to reduce quackery. Mr. Whiteside, counsel of the State Medical Society, remarked at a recent conference with the Governor that in his opinion such annual re-registration would not reduce quackery any more than the annual re-registration of all honest men would reduce burglary.

The profession has been on record for a long time as opposed to annual re-registration.

Of course, there are objects other than the suppression of quackery which are sought through re-registration. These objects have been frankly discussed in the past.

Why cannot flagrant quackery be dealt with directly where it is known of all men to exist, without putting anything over on the profession?

Is the Fluoroscope Neglected in Fracture Work?

Why is the fluoroscope not used more often in the reduction of fractures? Ask a surgeon about it and he will probably say that the *x*-ray apparatus in a hospital is usually remote from the operating rooms and that the frequent use of the fluoroscope would be fraught with danger to the surgeon's hands. Yet both these objections could be met. Better hospital planning and building would make the apparatus available, and even in existing plants contact could be effected. With respect to the menace to the hands, it would not be necessary to use the fluoroscope while manipulating fragments, but only to check up on the spot after the usual methods of procedure; failure to accomplish proper reduction could then be rectified at once and again checked up. Certainly this would be better technic than waiting for a picture and then staging the performance over again. The sensibilities of the patient would be better respected and the surgeon's own convenience enhanced. If it is incumbent upon us to use every valuable resource in modern practice are we not neglecting one which as a matter of fact is actually available?

Radio Insomnia

Every innovation of modern civilization or culture introduces a new sign, symptom or syndrome. The telephone, the aeroplane, and the automobile, for example, have each their medical connotations.

The telephone girl suffers, at times, from auditory disturbances; the aviator, of course, gives his reactions to oxygen deprivation; and the automobilist has his chauffeur's fracture and various other troubles.

The pure sports, like golf, football, baseball, etc., have their special concomitants or sequelæ.

It is safe to prophesy that the radio craze will also present its morbid phases. Thus it has already been noted that some people with high blood pressure, particularly women, suffer either from an aggravation of existing insomnia or develop it as a new symptom as a result of evenings devoted to the radio.

We Should Worry

Without much stretch of the imagination we can see in the near future a popularization of two operations which are now of only academic interest, so to speak. One of these operations is Steinach's; the other is sterilization in the course of the Cesarean in primiparæ.

When we say Steinach's operation we really mean double vasectomy, not for the alleged rejuvenation of old men, but as a factor in birth control.

With respect to the other operation, what we have in mind is that there is every probability that there is to be further biological decadence, which now has reached only the point of partial contraception and failure to nurse. The biologically degenerate woman of the future will, if by any chance she should carry a child to term, be Cesareanized so as to escape the strain of labor, and at the same time sterilized so as to avoid further impregnation.

To these methods may possibly be added sterilization by means of the *x*-ray.

When we speak of biological degeneracy we include psychic as well as physical elements. There is a large psychic factor behind the failure to nurse. If a woman can nourish a child in utero for nine months and improve in health (which is generally the case) while doing so, why cannot she nourish it after it is born? Because, short of an abortion, she cannot escape her obligation while carrying the child, whereas it is possible to raise a child after birth without actually nursing it; the issue is always settled in accordance with the subconscious (or conscious) desires of the mother.

Of course, we are speaking only of that curious minority of women of the higher social castes, still sought after as wives, on the basis of a warped species of sexual selection, by the very gentlemen who profess so greatly to deplore present biologic tendencies.

Since this minority is doomed, by very reason of its degeneracy, the race will be well rid of an encumbrance which by a strange process of reasoning regards itself, and is so regarded by many who ought to know better, as a superior element in the population.

Sexual selection will take care of the males who are still fascinated by this freak minority of women. Since such women tend to die out, for the reasons stated, without reproducing themselves, these precious males will themselves die unrepresented in the generations to come.

And here we should like to record our conviction that among the class of men in question there is a relatively early loss of virility corresponding in a way to the "inability" of the women to nurse; a biologic failure all round.

In any case, we should worry.

Miscellany

Conducted by ARTHUR C. JACOBSON, M.D.

Automobile Insurance for Doctors

"Today the cost of the various forms of insurance which the prudent physician carries is a very considerable item in the yearly budget. One of the largest of the outlays is that for automobile liability. Based in general on the horsepower of the car, the rate is in no way regulated by the character of the operator. Yet the all important factor is the operator. In general, physicians are skilful, careful and considerate drivers, and in spite of the fact that they have to be out in all seasons and at all hours, few accidents are due to their fault. Under these conditions is it fair that they should be obliged to pay for the accidents which are the fault of reckless joy riders? This is what is required under the present system of insurance. Might not a committee be appointed by our Council of the Massachusetts Medical Society which could ascertain whether any of the insurance companies would insure members of the Society at a lower than the ordinary rate? There is no obvious reason why this would not be a good business proposition, both for the companies and for the Society members. If it seemed wise to penalize any reckless drivers, there might easily be established a sliding scale. At the start any applicant for insurance as a member of the Society who had been involved in an accident within a year might be required to pay the standard rate. Others would pay a lower rate, which might be cut 10 per cent each year until it reached an irreducible minimum, below which the insurance company could not safely do business. Any member meeting with an accident might automatically go back to the initial rate."

—*Boston Medical and Surgical Journal, Nov.* 8, 1923.

The Report of a Committee to Investigate the Cults

More than a year ago a committee of the Massachusetts Medical Society prepared and presented a comprehensive report in which the advisability of a careful exhaustive investigation of the methods of the cults was suggested. The committee was continued and has undertaken some investigations. Its final report, made to the Councilors of the Massachusetts Medical Society, appeared in the *Boston Medical and Surgical Journal*, Oct. 25, 1923. The committee attempted (1) to learn what is the underlying pathology of lame backs and why they are in some instances benefited by osteopathic treatment; (2) to find out if there is any value in osteopathic treatment in well understood diseases; (3) to ascertain if the so-called osteopathic lesion along the spine is a constant and specific one for different diseases of known pathology.

The first undertaking was abandoned, after an attempt to have some investigations made jointly by the orthopedic department of the Massachusetts General Hospital and some osteopaths. So the committee had nothing to report on that.

To determine any possible value in osteopathic treatment in well understood diseases, treatment by osteopathic manipulations was started in the wards of the Peter Brent Brigham Hospital, but the patients so treated did not stay in the wards long enough for the treatments to be satisfactory from the point of view of the osteopaths, and so that form of investigation was abandoned. Finally, however, an osteopath worked on a group of eight cases of "so-called" asthmatic bronchitis, and gave them a satisfactory number of treatments. In reply to letters sent them, four of the eight patients have stated that they have felt improved since they had the osteopathic treatments. The committee regrets "that further work could not have been done under carefully controlled circumstances on cases in which the degree of improvement could be measured by some more exact standards than the personal feelings of

the patients and in diseases in which the course of events is a little less variable. Such an investigation, however, did not seem to be practical with the force available."

The failure to secure results in the first two undertakings was not so marked in the third, because developments of interest to the committee ensued. Two members of the staff of the Peter Brent Brigham Hospital and three osteopaths conducted this study, which was made to ascertain if the so-called osteopathic lesion along the spine is a constant and specific one for different diseases of known pathology. The two staff physicians "endeavored to learn" from the osteopaths how to detect the presence of the "osteopathic lesion." A series of cases were then studied for the "lesion," with two or more of the group of workers examining independently each patient. The diagnosis was not known at the time of the examinations. About 180 cases were studied in this manner, including diabetes mellitus, cardiac disorders, respiratory tract infections, gastric lesions, chorea, pernicious anemia, hypertension, psychoneurosis, and a few cases later diagnosed as "no disease." "One or more so-called osteopathic lesions were detected at various points along the spine in each case," says the report, "but there was no specificity of location of the lesion for a given disease." In a considerable group of the cases examined, the two osteopaths, working independently, agreed on the location of the lesion in only 12.5 per cent. of the cases. The committee concludes, therefore, that the study "seems to show not only that the osteopathic lesion is a difficult one to detect even by experienced osteopaths, but also that there is no specific lesion along the spine for a given disease."

The Massachusetts committee "feels that considerable doubt must be thrown upon the theory of osteopathy" and that "although osteopathic procedures seem to have some value as a therapeutic agent in certain *conditions* it has not been made clear how this benefit is derived; and, further, that the existence of osteopathy and chiropractic, "although based upon false theories, probably in part flourish from the failure of the medical profession to give due importance to physiotherapy." The committee "urges that the medical profession and the medical schools of the country pay more attention to this form of therapy" and asks to be discharged.

—*American Medical Association Bulletin, Nov.*, 1923.

Progress in Surgery

(Concluded from page 6)

bacteriological studies in our cholecystitis cases and the stones have frequently not been analyzed. It is suggested that these factors be studied more thoroughly in the future. The type of organism, or the formation of the stone, may have an important bearing on the decision as to the most appropriate operative procedure.

Whether we should remove the gall-bladder or should drain it is still and unsettled question. After careful analysis of the present group of cases my own personal view is that drainage of the gall-bladder is the safer and easier procedure in the hands of the average surgeon and in the average case. If a second operation should become necessary, cholecystectomy sould be seriously considered. No hard and fast rules can be laid down. Each case must be considered by itself. We shall look forward with interest to the careful tabulation of gall-bladder results from other clinics, for it would seem that reports of large series of such cases, each coming under the care of the same surgeon, would go far to help in the solution of these problems.

Comment

Gall-bladder surgery at any stage in its evolution is only a phase of the surgeon's skill; as this increases so will the operative procedures represent a more highly specialized technic. Whether cholecystotomy or cholecystectomy is the wiser procedure must be determined on the merits of the individual case. Whichever operation is used, there will always remain a certain percentage of cases not satisfactorily relieved, and this is due to the fact that the gall-bladder is not analogous to the appendix. The gall-bladder has a function—it regulates the flow of bile, and it regulates the quantity of bile. *A functionating organ cannot be removed without a compensatory reaction.* Hence, the removal of the gall-bladder is tolerated by a compensatory change in the large ducts which dilate and form a substitute reservoir, and this compensatory change depends upon the muscular integrity of the *sphincter of Oddi.*

Failure of compensatory function leaves the mouth of the common duct patent, with the secondary danger of ascending infection. Loss of bile secretion leads to stasis of food in the duodenum, reflex diminution of hydrochloric acid in the stomach, and the train of general disturbances from hydrochloric acid deficiency—vomiting, eructations, sensations of gastric pressure, and constipation.

Jennings (F. D.) presents an interesting discussion *of "Surgical Operations in Later Life"* (*Long Island M. J., Jan.*, 1923). His conclusions are that surgery at this time of life offers a wide field for local anesthesia, and that as a class, such persons are better operative risks than are commonly believed. The general condition of the patient is of greater significance in deciding on operability than the abnormality of any particular organ. In general, the aged in good condition have fair resistance to infection, but not such good resistance to shock, nor do they stand the loss of blood well.

Summary

The year's progress is marked by a refinement of technic, notably in the more general use of local or regional anesthesia specially applied to the hernia problem. Cancer receives a large share of attention, and emphasis is placed upon early operation combined with radium emanations. Thromboangitis obliterans is brought into the limelight by the isolation of a specific organism from the blood stream; and the medical field is again invaded by the surgeon in the suggestion that it is possible to alleviate angina pectoris by surgical methods.

394 Clinton Avenue.

Progress in Dispensary Field

(Concluded from page 14)

"It is the responsibility of an out-patient clinic to provide correct diagnosis and adequate treatment for ambulatory patients; to instruct its patients so as to assist in the prevention of disease; to aid in investigation of the causes of disease and of methods of treatment and prevention; and to provide educational facilities and useful experience for physicians, medical students, interns, nurses, pupil nurses, social workers, and others concerned with the care of the sick, or the promotion of health."

Progress in Internal Medicine

(Concluded from page 3)

November, December and January, these being months when rabbits become a common article of food.

The mediums for culture are: (1) Serum glucose cysteine agar (97.4 per cent efficient); (2) Serum glucose cysteine hydrochloride agar (96.4 per cent. efficient); (3) Glucose cysteine hydrochloride agar (72.3 per cent efficient). These media have been successfully employed in making original isolations of the bacterium in subcultures (luxuriant growth in 24 hours), in growing antigens for agglutination tests, for complement fixation, and for immunization of animals.

In reviewing the ever increasing mass of literature devoted to the consideration of the various fields of internal medicine, one cannot fail to be impressed by the sound bases of experiment and observation upon which real progress in diagnosis and treatment must be founded. The progress during the year which is now closing is substantial and gratifying to those whose work must lie in the practical application of these conclusions to the alleviation and cure of disease.

679 Madison Ave.

The Physician's Library

(Concluded from page 18)

Proctology—By T. Chittenden Hill, M. D., Harvard Graduate School of Medicine. 297 pages. Philadelphia: Lea & Febiger, 1923.

There has long been a need for a manual on this subject. We have some very excellent textbooks but they are likely to prove too verbose for the general practitioner. Dr. Hill's book covers the field briefly but thoroughly and it should fill the w. k. long-felt want. The author's long experience as a proctologist makes his word entirely authoritative.

Nonsurgical Drainage of the Gall Tract—By B. B. Vincent Lyon, M. D., of Jefferson Medical College. Cloth; 640 pages. Philadelphia: Lea & Febiger, 1923.

The author states the purpose of this book is to give the profession a more complete form of the diagnostic and therapeutic value of nonsurgical drainage and to demonstrate its value to the surgeons as well as the physician, which he has very thoughtfully done. The method aids in an early recognition of gastro-intestinal and gall bladder disease and, when utilized, it aids the physician in discarding some of the dietetic and oral therapeutic measures which have oftentimes proved unsuccessful. In addition, this method gives a better chance for complete recovery after operation. That this idea has limitations is acknowledged by the author, who points them out and shows how they can in a way be avoided. The book is a painstaking study of an important subject which will, we believe, be well received.

Diagnosis and Treatment

Trypaflavine in the Treatment of Vincent's Angina

H. Buschmann (*Deut. Med. Woch.*, May 11, 1923, p. 617) treated 14 cases of typical Plaut-Vincent angina between October, 1922 and March, 1923. In every case the clinical examination showed the characteristic diphtheroid ulceration, and he bacteriological examination showed the typical spiriala and fusiform bacilli. The following treatment was adopted in every case. A solution of trypaflavine, put up in 10c. ampules, was painted three or four times a day on the tonsils, palatine arches, and uvula. Every other hour the patients gargled with a 0.5 per cent. solution of trypaflavine, and they were told that it did not matter if they swallowed some of the gargle by accident. In 13 cases the membranes were discharged, and recovery occurred three to seven days after the institution of the treatment. The fourteenth patient suffered from four different attacks of Vincent's angina; the rst two reacted promptly to the treatment with trypaflavine, but on the third and fourth occasions the disease proved refractory to this treatment, and painting with salvarsan was resorted to. The author concludes that trypaflavine is an excellent remedy for Vincent's angina.—(*Brit. Med. J.*, July 21, 1923, No. 3264, 10.)

Silver Salvarsan in Malaria

Jungbluth *Deut. Med. Woch.*, April 27, 1923, treated 18 patients suffering from malaria in a hospital in Brazil with intravenous injections of silver salvarsan. His impressions of this treatment are very favorable. The injections were given four to six hours before the rise of temperature was expected, and the character of the temperature curve was appreciable modified. In every case the fever was banished and rapid improvement effected in the patients general health.

The effect of silver salvarsan was particularly beneficial in those cases in which malaria had induced severe anaemia which was refractory to other drugs, such as arsenic and iron. Six of the patients had proved to be quinin-resistant, and they had developed malaria six to twelve months earlier. The temperature curve, which at the beginning of the illness was of the tertian type, became irregular and no longer reached any considerable height. As a rule, after a couple of injections, there was no more fever, and after two more injections there was as improvement in the secondary anaemia from which these patients were suffering. Only one injection out of 350 gave rise to the anglo-neurotic symptoms complex of salvarsan.—(*Brit. Jour. Derm. and Syph.*, Aug. 18, 1923, 3268, 21.)

Hyperthyroidism

Frank N. Walker of Toronto believes that the thyroid gland must have some other function beyond the secretion of thyroxin. A fact that must be taken into account is that the thyroid gland is actively an epithelial organ, an outgrowth in fœtal life from the alimentary tract, the duct of which closes at the eighth fœtal week. In the amphioxus this duct remains patent. The late dissociation of the thyroid from the alimentary tract possibly explains the fact that this is the one gland of the endocrine system whose substance remains active in the presence of stomach juices, thus allowing satisfactory oral therapy. There is evidence, also, that the thyroid cells possess some of the power of the stomach cells, namell, protein disintegration.

Quoting Sajous "Thyroidectomized dogs suffer severely when fed on meat; obviously the thyroid mut contribute to the breaking down of meat proteins . . . . ." Turro has found that the juice of swines' and sheep's thyroids almost entirely dissolves the coma, typhoid and anthrax bacilli, as well as bacillus coli communis and streptococcus . . . . On the whole, as Crotti states, "The protein origin of Graves' disease is no more a puzzle. The remote causes of it are indeed numerous and diverse, as in infectious diseases, disturbed polyglandular function, chemical agents, etc., but the immediate cause is always the same, the hyper-function of the thyroid."

It seems possible that the special function of the thyroid gland is the secretion of thyroxin; also, that the gland has a second emergency function of secreting a proteolytic hormone. These powers seem so interlocked that a call upon the proteolytic hormone also stimulates the flow of thyroxin with all its physiological effects upon metabolism, and the consequence is intoxication.

Walker calls attention to the presence of Graves' syndrome in many cases of rheumatic fever, scarlet and typhoid fevers, also in tuberculosis; but in most of these diseases this syndrome has been given its proper role, namely, that of a symptom rather than a disease. The treatment of the real disease in most cases causes the hyperthyroidism to recede forthwith.

A point that is well worth recalling at this stage is that not all patients with foci of infection develop Graves' syndrome. There must be some inherent complex that allows the demands of these conditions to precipitate hyperthyroidism. This complex is probably inherent in the relations of the various endocrine glands to one another. The author has found no evidence that thyroid feeding will produce Graves' syndrome in a normal individual. This, however, is quite possible in those with disturbed endocrine function.

To quote Nellis Foster, "Blackford summarizes that every patient with thyrotoxicosis, under forty, examined at post-mortem, showed evidences of hypertrophy of the thymus."

The menopause is frequently accompanied by evidence of hyperthyroidism.

The writer had a patient showing Graves' syndrome of which almost immediate improvement appeared after daily administration of anterior lobe of the pituitary gland. This patient is still gaining weight after seven months of the treament, though the symptoms return when treatment is discontinued.

The cases of dysthyroidism, have an endocrine basis but, for the most part, a second or third aggravating cause is necessary to bring out Graves' syndrome.

Secondary hyperthyroidism, though not common in my experience, certainly occurs. Walker saw a patient in November, 1918, whose chief complaints were constipation and stomach trouble. She had a very large goitre, with sunken eyes and slow pulse. In November of 1921, he saw this patient again.

She had had a great deal of worry and was five months pregnant. The chief complaints were loss of weight and nervousness. The pulse was rapid, tremor and exophthalmos were noticeable. In this case a gland that was poor in secreting power had probably taken on increased powers due to a complex of physical and mental conditions.

In conclusion Walker quote Nellis Foster, "It is exceedingly difficult, if not impossible, to bring clinical and anatomical forms of goitre into harmony. The reason for this need not detain us since the elaborate classifications of morbid anatomists are being gradually abandoned as a clinical conception is gained of the processes leading up to the developments of each picture."

Under prognosis Sajous states, "The search for a specific will continue to be as unsuccessful as it has been because of the multipliciy of toxic factors that initiate the disease. Each case has its own specific treatement, i. e., that of the causative disorder . . . . . ." Briefly, very few diseases offer a prognosis as favorable as that of hyperthyroidism or Graves' disease, providing the pathogenic factor can be brought to light and removed, and the damage to the organism repaired by measures carefully adjusted to each lesion which is discovered.—(*Canadian Practitioner*, July, 1923.)

Serotherapy and Chemotherapy in Puerperal Infections

In the field of wound infections proof of the efficacy of therapeutic procedures is particularly difficult to obtain, says E. Bumm. Comparisons between animals and man are of only limited value, because, for example, man is extraordinarily susceptible to streptococci, while in animals these micro-organisms never cause similar diseases. In addition, the course of wound infection in man is extremely variable. If the turning point for the better coincides with the therapy false conclusions are easily possible. The difficulty of judging is particularly great in puerperal fever, which runs its course in the depths of the body. Bumm found, for example, that cases of ascending gonorrhea or retained lochia are often treated with streptococcus serum.

Another therapeutic method consists in the subcutaneous or intravenous injection of immune bodies or bactericidal chemical preparations. Serotherapy and chemotherapy have become discredited because too much has been expected of them and their aid is called in too late. It is essential that they be employed early while the infective process is still circumscribed. Serotherapy and chemotherapy work best as prophylactic measures. The practice at Bumm's clinic is as follows: (1) An intramuscular injection of 50 cc. of antistreptoccus serum, and (2) with the onset of chills, an intravenous injection of 50 to 100 cc. of 1:1000 solution of rivanol. Above all, the natural defense of the body is aided by the application of heat and the generous administration of alcohol. In 85 per cent of the cases it was possible to localize the puerperal streptococcic infection. under sero-chemotherapy the total mortality was only 6.9 per cent. —(*Med. Klin.*, 1923, XIX, 1.)

An Unusual Obstetric Case

H. O. Lethbridge of Narrandera, New South Wales, reports this case.

About nine years ago I was called out forty miles to the Warangesda Aboriginal Mission Station, of which I was the medical officer. I found a black "gin" in labor and gravely ill. She had been some twenty-four hours in labor and protruding from the vagina was the repulsive face of an anencephalic monster, the sort that one sees in text books and hopes never to meet face to face. With some slight difficulty I delivered the fetus.

On endeavoring to express the placenta I felt the uterus very small and hard. I concluded the placenta must be in the vagina, but on inserting my hand and following up the cord I found the placenta in the abdomen and in the right iliac fossa. I carefully felt the uterus and made quite certain that it had no tear. The cervix was still present and undilated. She must have had a full time extra-uterine gestation.

The obstetric nurse, another black "gin," informed me that while the patient squatted on the bed, she had pressed her abdomen (the patient's) by sitting on it. She also cut the membranes (actually the protruding vagina) with a glass bottle. She said: "Alway do that fella make him come quick." The patient died.—(*Med. Jour.*, Australia, Aug. 18, 1923.)

Autoserum Treatment of Pneumococcus Meningitis Complicated by Syphilis

Intraspinal injection by autoserum has been considered contraindicated in cases of the disease complicated with syphilis, because of the theoretic possibility of spreading the latter disease to the meninges. To refute this conception, as well as to add something to the therapy of the condition, W. S. Horn reports an applicable case in which a modified Swift-Ellis treatment was administered and apparently was the cause of the favorable outcome.—(*J. A. M. A.*, Apr. 21, 1923, 80, 1124.)

Dermatitis Exfoliativa. (Healed with Sodium Hypo-Sulphite)

Trimble reported the case of W. McC., a man, aged 36, born in the United States, single, a plumber, presented a generalized glazing of the skin. Eighteen months ago he received five arsphenamin injections for a primary lesion, and an attack of dermatitis exfoliativa came on which lasted four months, involving loss of hair and nails, diarrhea, elevation of temperature and delirium. On February 27, an erythematous generalized eruption appeared, which became erythematopapular in two days, and vesiculosquamous in five days. On March 1 (third day), injections of sodium hyposulphite were begun and continued thus: March 1, 1923, sodium hyposulphite, 3 gm. plus 15 grains, three times a day, by mouth; March 3, 0.6 gm. plus 1 grain, three times a day, by mouth; March 5, 0.75 gm. plus 15 grains, three times a day, by mouth; March 7, 0.9 gm. plus 15 grains, three times a day, by mouth; March 9, 1 gm. plus 15 grains, three times a day, by mouth. March 12, 1 gm. plus 15 grains, three times a day, by mouth; March 15, 1 gm. plus 15 grains, three times a day, by mouth; March 17, 1 gm. plus 15 grains, three times a day, by mouth; and March 19, 0.15 gm. plus 15 grains, three times a day, by mouth. The patient is still taking 15 grains three times a day by mouth.—(*Arch. Derm. and Syph.*, Aug., 1923, Vol. 8, No. 2, p. 278.)

Chemotherapy

In discussing spirochetal infections, H. H. Dale says: Interest in the chemotherapy of these has until recently, centered almost wholly round salvarsan and its soluble derivatives (neosalvarsan, sulfarsenol, sulpharsphenamine, etc.) It is beyond the purpose of this review to discuss the enormous literature on their action. We may be content to note the greater efficacy of the original "606," thrown out of true solution at the reaction of the blood, as compared with that of the derivatives soluble at neutral reaction, when both are given intravenously. It may be suggested that the factor of persistence of action is here at work, the active arsenoxide being slowly liberated over a long period from the insoluble base deposited in the tissue; and this suggestion receives support from the observation that the more soluble and readily excreted derivatives acquire an enhanced efficacy with hypodermic injection. Some of these preparations, indeed, owe their popularity to the possibility of giving them hypodermically without causing excessive pain and duration. The increased curative action obtained by associating a silver compound with salvarsan, producing the so-called silver-salvarsan, is not yet adequately understood. It was supposed that a silver salt (nitrate or sulphate) formed an addition compound with salvarsan, the silver and arsenic combining in virtue of the residual affinities. Recent work seems to have supported the simpler, if less precise, conception, that the compound consists of silver chloride or oxide in colloidal solution, protected from aggregation by the emulsoid salvarsan. It must be left an open question whether the silver as such participates in the spirocheticidal action, or whether its association with the salvarsan favors the liberation of the directly therapeutic arsenoxide in the body.

Of fresher interest is the experimental demonstration by Levaditi and Sazerac (1921, 1922), of the curative action in syphilis, and in the closely analogous natural infection of rabbits with spirochaeta coniculi, of the bismuthyltartrate of potassium and sodium—a bismuth analogue of tartar emetic. Fournier and Guenot (1921, 1922) have used it extensively and with success in treating human syphilis. The sodium salt had already been used by Robert and Sauton (1916) for experimental treatment of spirochetosis in fowls. It will be noted that again, when arsenic is replaced by one of its chemical relatives, antimony or bismuth, the necessity for employing a complex and unstable organic derivative seems to disappear, and a relatively simple salt of convenient solubility seems to have an adequate therapeutic effect. Later experience has tended to emphasize the view that it is bismuth, administered in any form which will secure adequate absorption, which is the essential hemotherapeutic agent in this case. On the other hand, in the first observation of the action of bismuth compounds on a spirochetal infection, in which Robert and Sauton demonstrated its curative effect in infections with Sp. gallinarium, these authors record that the sodium bismuthyl tartrate was without action on the parasites in vitro.—(*Physiological Rev.* III, No. 3, July, 1923.)

Colloidal Silver for the Treatment of Novocain Dermatitis

The purpose of a communication by D. O. Henson is simply to direct the attention of those suffering with Novocain dermatitis to the value of colloidal silver as a remedy.

Novocain dermatitis is a very common condition which has caused many practitioners to remain inactive for long periods of time; in some instances it has taken months to get even temporary relief.

The preparation is an emulsion of colloidal silver called Arkase, recommended by Dr. John L. Laird of Philadelphia, especially

for its value and clinical results in various skin diseases, and which I have been using in my practice with good results for some time.

Its value as a topical remedy depends upon the following properties: it is absolutely harmless, it is a powerful germicide, does not coagulate albumen, it is absorbable, does not stain the tissues and can be washed off in cold or warm water.—(*Dental Cosmos*, Aug. 1923, 890.)

Hexamine and Antipyrine in the Treatment of Diabetes

Maurice Loeper, as the result of many observations, has formed the following conclusions:

1. Antipyrine is a good drug for diabetes, but is not successful in all cases. It decreases almost constantly the glycosuria, but this decrease is often deceptive.

2. To appreciate the results yielded by antipyrine it is not enough to estimate the urinary sugar; the sugar in the blood must be estimated. Antipyrine can increase the glycæmia whilst it decreases the glycosuria.

3. Antipyrine acts upon the glycogenesis, but it can also act by election upon the kidney.

4. The difference between the estimations of the blood and of the urine can be attributed to the predominance of the renal action and to the reduction of the permeability.

5. To make use of one and reduce the other, it is indispensable to associate with antipyrine a drug which excites the renal secretion.

6. This drug is hexamine, the effects of which upon the kidney are the inverse of those of antipyrine. Given alone to a diabetic, hexamine increases the glycosuria and reduces the glycæmia; combined with antipyrine it suppresses the blocking of the kidney, but does not alter the antiglycosuric effect of antipyrine.—(*Le Progrés Medi, May* 12, 1923.)

Ciliary Blepharitis

Darier recommends epilation for this affection, followed by applications of tincture of iodine or of nitrate of silver:

Silver nitrate	5 g.
Distilled water	10 g.
Spirits of nitric ether	85 g.

or of sulphate of copper:

Copper sulphate,	
Ichthyol	of each 0.40 g.
Vaselin	30 g.

At night the edges of the eyelids have the following ointment applied:

Ichthyol,	
Zinc oxide,	
Gelatin	of each 2 g.
Glycerin,	
Distilled water	of each 10 g.

Above this for the night is placed a poultice covered with gold-beater's skin; in the morning after cleansing with boiled water, the same ichthyol ointment is applied.—(*Jour. des Prat. May* 26, 1923.)

Hemorrhage Following Treatment by Bismuth Salts

Maranon at a meeting of the Spanish Medico-Chirurgical Academy (*Ann. l. de la Acad. Med.-chir. Esp.*, May 7, 1923, p. 379) reported four cases of severe hemorrhage, three of which were fatal, in patients who had been treated for syphilis with bismuth salts. Two of the patients showed a predisposition for hemorrhage; one was a boy, aged 14, who had recently had an attack of purpura hemorrhagica, and the other was a man, aged 50, with arterio-sclerosis. Maranon does not think that the bismuth salts were responsible for producing the hemorrhages, but suggests that in persons with a predisposition to hemorrhage special care should be taken in their use. In the subsequent discussion J. Covisa and Bejarano, who both had considerable experience in the treatment of syphilis by bismuth salts, stated that they had never observed any hemorrhages due to this cause, even in persons liable to develop them, such as arterio-sclerotic subjects.—(*Brit. Med. J.*, Aug. 4, 1923, 3266, 17.)

The Influence of Pathological Conditions Upon the Decomposition of Adrenalin

The action of adrenalin is prolonged in infants afflicted with acidosis and reduced in fever says A. Balint and L. Goldschmidt. Adrenalin gives almost no rise in blood pressure when it is injected into a child that has been breathing rapidly for 15 minutes. Adrenalin is destroyed, in vivo, by a process of oxidation, which is most rapid in the presence of alkali. In vitro, experiments are described that lead to the same conclusion.—(*Chem. Abst.*, Aug. 20, 1923, 2740.)

Chronic Urticaria in Adults

S. H. Lancashire of Manchester, Eng., asks what is the best treatment of chronic urticarial adults. Hebra admitted that he found many of them incurable and there appears to be a pessimistic attitude prevailing to this day. There is no doubt that in a certain type of patient the complaint is extraordinarily obstinate, and there may be some who are incurable with the means at our disposal. But he does believe success can be attained in quite a number of apparently hopeless cases, and that it is worth any amount of trouble to relieve what is, after all, a very miserable existence. It must be remembered that the cases one sees in practice have been through the usual regime. They have been dieted (though often imperfectly) and drugged without avail. If one can but break the urticarial habit, as it were, in these cases, and secure an interval of comfort, that alone is well worth having. But I believe this intermission itself goes a long way towards real cure, in that it leaves the vaso-motor apparatus less sensitive to subsequent disturbance.

To attain this end the author insists on absolute rest, bodily and mental, and put the patient into bed for two or three weeks. If the home atmosphere is not conducive to real rest, by reason of worrying domestic affairs, a hospital is advisable. This rest, with the patient in the right frame of mind, I regard as the most essential step of all. For food, a strict milk diet in the first week. It very rarely happens that milk proves to be the wrong food, but this may occur, and in that case he uses Duncan Bulkeley's carbohydrate diet. It goes without saying that the condition of the kidneys and bowels is carefully watched.

After the rigid initial diet more latitude can be allowed, but the writer advises the patient to proceed by degrees and add only one fresh food at a meal to his diet. In this way any particular offending food can be eliminated. The method is very simple, and is exactly opposite to what has been usually recommended since Willan's day; that is to say, starting on full diet and gradually reducing this. Since more than one article of food may give toxic effects, and very many shots in the dark must be made, the unfortunate patient treated on this plan may get perilously near to starvation before finding the perfect diet. I exclude for a long time all fish foods, and I do not share Norman Walker's experience that white fresh fish is harmless as a general rule. The study of protein-reactions is of great interest, but I doubt if much practical value has yet arisen.

In a case the patient, a middle-aged man, had suffered since childhood from asthma, followed always by acute and sometimes dangerous attacks of urticaria. His protein reactions were negative to cod-fish and strongly positive to milk. Now, if this man swallows a morsel of cod-fish the eruption follows immediately, and, on the other hand, he recovers from his acute attacks on strict milk diet. In his case, the protein reaction would appear to be a fallacious guide.

One naturally excludes seasoned dishes, strong coffee, alcohol, etc.

A patient, however, assured the author that he always cut short an attack by going to bed and taking stiff doses of whisky. A case like this makes one think respectfully of the powers of auto-suggestion. As a matter of fact, the influence of the patient's own mind on his ailment is enormous in many chronic cases, and this is a factor which the physician can legitimately utilize.

Certain drugs are no doubt of benefit in chronic cases. One may by chance cure one with beta naphthol or other intestinal antiseptics. If possible, one must secure sleep for the patient. A dose of chloral and bromide may give this. Sometimes antipyrin gives a good night The author has much faith in quinin administered for long periods, with the dosage gradually increased.

The clothing is a matter generally neglected. None of these patients should sleep in stuffy beds with eiderdown quilts, and even fine woollens next to the skin are a source of irritation. They should wear woven linen-mesh or "cellular" cotton underclothing, or a very thin cotton material between the woollens and the skin, with plenty of good dusting powder on the latter. The baths are to be of body heat only, and may with advantage be slightly alkaline. Chills are to be avoided. The return to normal life must be gradual, if this is at all possible. Care must be taken with the diet, excitement avoided, and physical exercise not too strenuous. It is, in short, only by attention to detail that one can hope to cure some of these obstinate and distressing cases. He emphasizes the necessity of absolute rest in the first place. Next comes diet, medicinal treatment, and general hygiene. Finally, there is the psychical factor.—(*The Practitioner*, Sept., 1923.)

Positive Wassermann Reaction in a Fatal Case of Estive-Autumnal Malaria

A patient of H. M. McConnell had a four plus Wassermann reaction during the febrile stage of the disease. No clinical significance was accorded the reaction as it was thought to be due to malaria. At necropsy, however, syphilitic lesions of the aorta were found.—(*J. A. M. A.*, Apr. 21, 1923, 80, 1123.)